

EXAMPLES
OF
COTTAGES

JOHN BIRCH

1892

87
L90

James Reade
Jordanstown



The Society of Arts Prize Design.



Society of Arts, 1864.

EXAMPLES

OF

Labourers' Cottages, &c.

WITH PLANS FOR IMPROVING THE DWELLINGS
OF THE POOR IN LARGE TOWNS

BY

JOHN BIRCH

ARCHITECT

AUTHOR OF 'DESIGNS FOR LABOURERS' COTTAGES,' TO WHICH WAS AWARDED THE MEDAL
AND PREMIUM OF THE SOCIETY OF ARTS, 'COUNTRY ARCHITECTURE,' 'STABLES
AND COUNTRY MANSIONS,' 'PICTURESQUE LODGES,' 'CONCRETE
BUILDINGS FOR LANDED ESTATES,' ETC.

WILLIAM BLACKWOOD AND SONS
EDINBURGH AND LONDON
MDCCCXCII

TO THE
NOBILITY AND GENTRY

THIS PAMPHLET

IS MOST RESPECTFULLY INSCRIBED

BY THEIR MOST OBEDIENT HUMBLE SERVANT

JOHN BIRCH



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P R E F A C E.

SINCE this little work was published in 1871, there has been a marked improvement in the number and character of the cottages erected throughout the country. Several editions of the work in its old form having been published from time to time, the author has been encouraged to carefully revise and enlarge the work, and has added a considerable number of new examples which have been erected in various parts of the country, and has also added a few selected examples of other buildings of a kindred character, and would respectfully invite the attention of the nobility and landed proprietors to a subject of no small importance affecting the comfort and welfare of both landlord and peasant.

Doubtless during the last quarter of a century much improvement has taken place in the dwellings of the labouring classes; there remain, however, districts where little or nothing has been done in the way of building new cottages, or in improving and renovating existing ones. The advantages of well-arranged and comfortable dwellings, each having three bedrooms, are apparent on all well-managed estates; and

farms having such cottages let more readily and command better tenants than where the buildings are of a poor and squalid character. In some cases the buildings on a farm are good and the land very poor ; but, as a rule, farms with good buildings and cottages seldom lack tenants, unless from some exceptional cause. It will be obvious to the reader that the comfort and welfare of the cottagers, both morally and physically, are much better provided for where each house has at least three bedrooms ; and no cottage residence for a family should be built with less sleeping-room accommodation. Frequently this class of house, besides being badly built and uncomfortably arranged, is made plain and unsightly ; this is quite a mistake. A little taste judiciously exercised adds but a very trifling sum to the cost of a well-digested and thoroughly compact plan, and whilst being comfortable to live in, the exterior can be made of a pleasing and rural character. The smallest hamlet or village on a nobleman's or gentleman's estate ought to be in keeping with the mansion, and denote by a picturesque rusticity the purposes to which it is devoted. It is well for the landowner and his guests to be able to tour round the environs of his domain, and feel pleased with the architectural forms of the various buildings on his property, from the peasant's humble home to the rectory.

The thoroughly old English cottage is almost a matter of the past, and very seldom to be found. There are a few instances to be met with marked by good taste and simplicity, and where not too dilapidated, these ought to be renovated and the old English features strictly preserved. Unfortunately these cottages to which I refer are too often replaced by buildings of a very common and vulgar type ; for even in the building of a cottage there is no reason why a certain

degree of taste and ability should not be displayed : it does not add to the expense in properly qualified hands.

The author has added to this edition the evidence he gave before the House of Lords Committee on Lands Improvement a few years ago.

Nearly all the examples in this work are such as would meet the requirements of the Board of Agriculture ; and as facilities are offered by Lands Improvement Companies, by advancing money under the sanction of the Board of Agriculture for these improvements, repayable by a terminable rate, it is surprising that this plan is not more frequently resorted to, especially where the property can be fairly charged with the cost of such improvements.

With these few imperfect remarks the author begs to place before the nobility and landed gentry this little work, which has been very carefully revised and enlarged, and trusts it will be the means of further improving the condition of the agricultural labourer.

8 JOHN STREET, ADELPHI, LONDON, W.C.,

March 1892.

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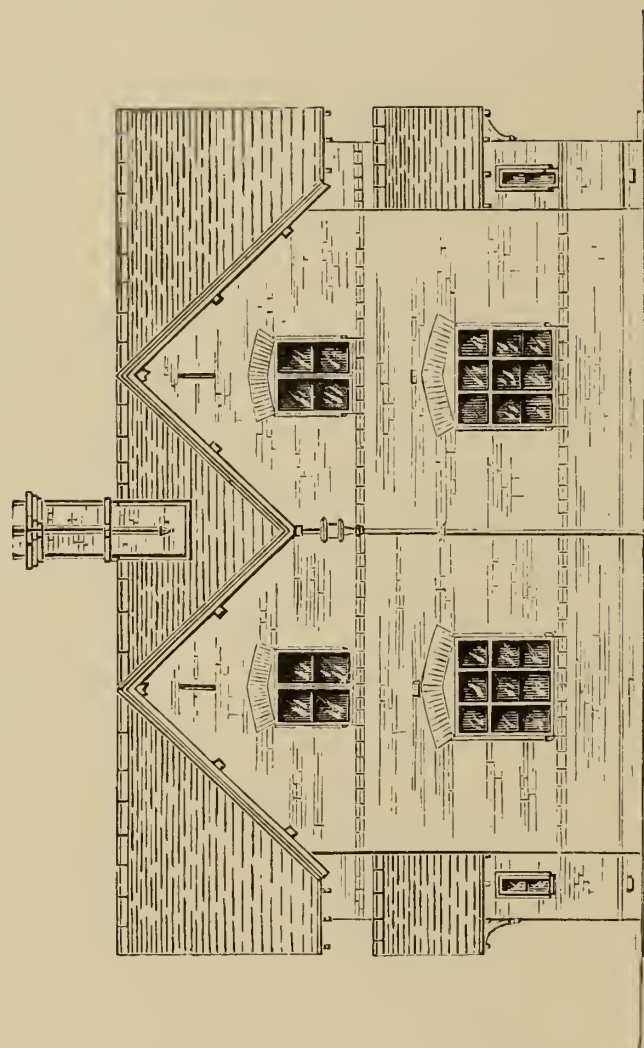


PLATE No. I.

EXAMPLES

OF

LABOURERS' COTTAGES.

PLATE I.

Design for a Pair of Agricultural Labourers' Cottages, to which was awarded THE SOCIETY OF ARTS' Medal and Premium.

THIS design for a pair of improved dwellings for the accommodation of the labouring classes was approved of by the Council of the Society of Arts, from 134 designs submitted in competition, assisted in their decision by the judgment of three professional gentlemen.

Each dwelling contains a living-room, three bedrooms, entrance-porch, scullery, pantry, fuel-store, piggery, privy, cesspit, and ashpit; each scullery is fitted with a washing-copper, sink, and a fireclay baking oven; the living-room fireplaces have ranges, and are fitted on each side with dwarf cupboards, with book-shelves over them; the bedroom fireplaces have firelump cottage grates. The system of warming and ventilating hereafter described has been applied to several of these dwellings.

Each pair of cottages has a well for hard-water supply, and the rain-water from the roofs is conveyed to tanks for domestic use, having pumps fixed over the sinks in sculleries.

The dwellings have been for the most part built of brick, and the

roofs are covered with tiles, the external walls being constructed *holloze* (in two thicknesses of brickwork, with space between) to prevent damp, and are plastered and coloured; the sculleries are fitted with towel-rollers and plate-racks, and the pantries have stone shelves and galvanised iron meat-hooks.

The cost of erecting these cottages in different parts of the country, including water-supply, drainage, and fittings complete, ready for occupation, has varied from £226 to £400 per pair, according to the locality, distance of carriage, and rates of wages, and have been erected as undermentioned:—

IN SURREY, FOR—

Albert Savory, Esq.
W. C. Scott, Esq.
The Lady C. Maxse.
Wm. Tarn, Esq.
The Rev. H. G. Watkins.
G. Calthrop, Esq.

IN SUSSEX, FOR—

The Rev. A. H. S. Barwell, M.A.
The Rev. J. M. Sandham.
H. W. Freeland, Esq.
Colonel St John.
Samuel Carter, Esq.
Sir C. W. Blunt, Bart.
R. B. Brander, Esq.
Earl Delawarr.
Sir C. M. Lampson, Bart.

IN ESSEX, FOR—

The Earl of Essex.
Sir Selwin Ibbetson, Bart., M.P.
Messrs Courtauld & Co.
Samuel Courtauld, Esq.

IN BERKSHIRE, FOR—

The Right Hon. Sir Joseph Savory,
Bart., Lord Mayor of London.
N. Humfrey, Esq.
The late Joseph Savory, Esq., of
Buckhurst Park.

IN KENT, FOR—

T. C. Dounie, Esq.
G. Calthrop, Esq.

IN MIDDLESEX, FOR—

Earl of Lucan.
Messrs Curtiss & Harvey.

IN HAMPSHIRE, FOR—

Sir G. P. Hornby, Bart.
Sir Arthur Grant, Bart.
Richard Christy, Esq.
R. G. Linzee, Esq.

IN WILTSHIRE, FOR—

The Marquess of Ailesbury.
Charles W. Curtis, Esq.
C. G. Colquitt Craven, Esq.
R. P. Long, Esq.

IN SOMERSETSHIRE, FOR—

W. J. Long, Esq.
William Tanner, Esq.
Sir A. H. Elton, Bart.
Sir W. Miles, Bart.

IN SHROPSHIRE, FOR—

The Earl of Bradford.
The Rev. F. H. Wolryche Whitmore
Sir William Curtis, Bart.
The Trustees of the Overton Estates.

IN STAFFORDSHIRE, FOR—

Basil Fitzherbert, Esq.
Sir C. M. Wolseley, Bart.

IN CHESHIRE, FOR—

Lord Stanley of Alderley.
Lord Crewe.
H. R. Tomkinson, Esq.

IN WARWICKSHIRE, FOR—

John Lancaster, Esq.
Thomas Wood, Esq.
Charles Nelson, Esq.

IN GLOUCESTERSHIRE, FOR—

The Earl Bathurst.
H. G. Sperling, Esq.
E. Waller, Esq.

IN NORFOLK, FOR—

E. R. M. Pratt, Esq.
E. S. Trafford, Esq.
The Lord Walsingham.

IN SUFFOLK, FOR—

Charles Dashwood, Esq.

The Rev. E. L. Savory.

IN WORCESTERSHIRE, FOR—

F. Elkington, Esq.

Sir E. Lechmere, Bart., M.P.

IN DORSETSHIRE, FOR—

Lord Portman.

W. R. Bankes, Esq.

IN NOTTINGHAMSHIRE, FOR—

The Earl Manvers.

H. Savile, Esq.

IN DERBYSHIRE, FOR—

The Lord Vernon.

IN NORTHAMPTONSHIRE, FOR—

The Earl Spencer, K.G.

IN HUNTINGDONSHIRE, FOR—

The Rev. C. Alington.

IN LEICESTERSHIRE, FOR—

Miss D'Oyly.

IN HEREFORDSHIRE, FOR—

J. H. Arkwright, Esq.

IN HERTFORDSHIRE, FOR—

H. S. Bosanquet, Esq.

IN YORKSHIRE, FOR—

Colonel John St Leger.

IN CARMARTHENSHIRE, FOR—

A. J. Gulston, Esq.

IN OXFORDSHIRE, FOR—

Miss D'Oyly.

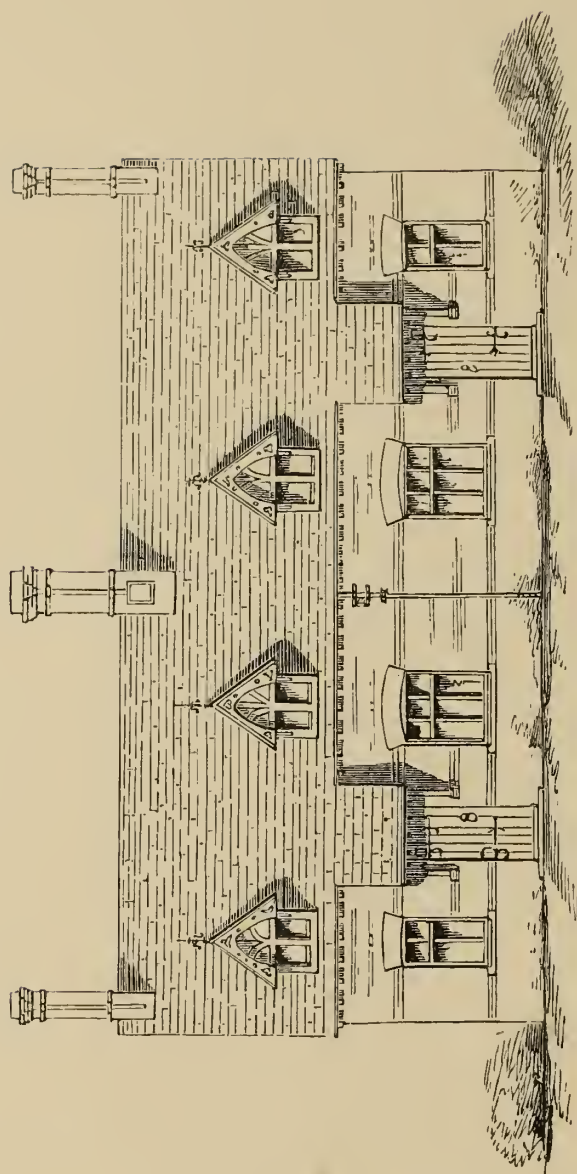


PLATE No. II.

PLATE II.

Cottages erected on the Savernake Estates, in Wiltshire, for The Most Noble the late MARQUESS OF AILESBUURY, K.G., and on the Dudmaston Estates, Shropshire, for the Rev. F. H. WOLRYCHE WHITMORE.

THIS drawing shows a geometrical elevation of some improved cottages for farm-labourers, erected recently at Great Bedwyn, near Marlborough, Wiltshire, for the Most Noble the late Marquess of Ailesbury, K.G. Each cottage contains, on the ground-floor, entrance-porch, living-room, and boys' bedroom, with scullery, pantry, and woodhouse in rear, and a store-closet under stairs; the chamber-floor contains a parents' and a girls' bedroom; the living-rooms and bedrooms are of good proportions; the outbuildings are situated within a reasonable distance in the rear of the cottages, having piggery and piggery-court, privy, cesspit, and ashpit to each cottage.

The bedrooms have deal floors, all other parts have tile and brick floors; the living-rooms are fitted with cottage-ranges with ovens, and the bedrooms have small grates; fireclay baking-ovens, washing-coppers, and sinks are fixed in each scullery; there is a hard-water supply to each cottage, and the rain-water is saved for domestic use, having a rain-water tank, with pumps to draw therefrom fixed over each sink in scullery; dwarf cupboards, with book-shelves, are fixed on each side of living-room fireplace; towel-rollers and plate-racks are fixed in sculleries, and meat-hooks in pantries; all the living-rooms and bedrooms are plastered; the sculleries, outbuildings, &c., limewashed. These cottages have been built of local red bricks, made on the Lord Ailesbury's estates, relieved with bands and arches of dark-coloured bricks from the same kilns; the external walls are made in two thicknesses of brickwork, each $4\frac{1}{2}$ inches, with a 3-inch

space between to prevent damp; the roofs are covered with plain tiles of dark-red and brindle colour, from Bridgewater, laid to pleasing patterns, with valley-tiles, and ornamental crested ridge-tiles; the dormer-windows have bold projecting roofs, with cut barge-boards and wrought boarding, and finished at the apex with cast-iron finials, of a Gothic character; the main roof is continued down over the entrance-porches, forming a hood, supported on ornamental wood brackets, springing from moulded stone corbels. These plans have been approved of by the Board of Agriculture, and the dwellings have been built under their inspection.

A number of pairs of similar cottages have also been erected on the farms of the Dudmaston Estates, in Shropshire, by the Rev. F. H. Wolryche Whitmore, under the inspection of the Board of Agriculture. They are built of Broseley bricks, of a very hard and impervious description, covered with tiles of the same material, and are finished in other respects similar to those on the Marquess of Ailesbury's estates.

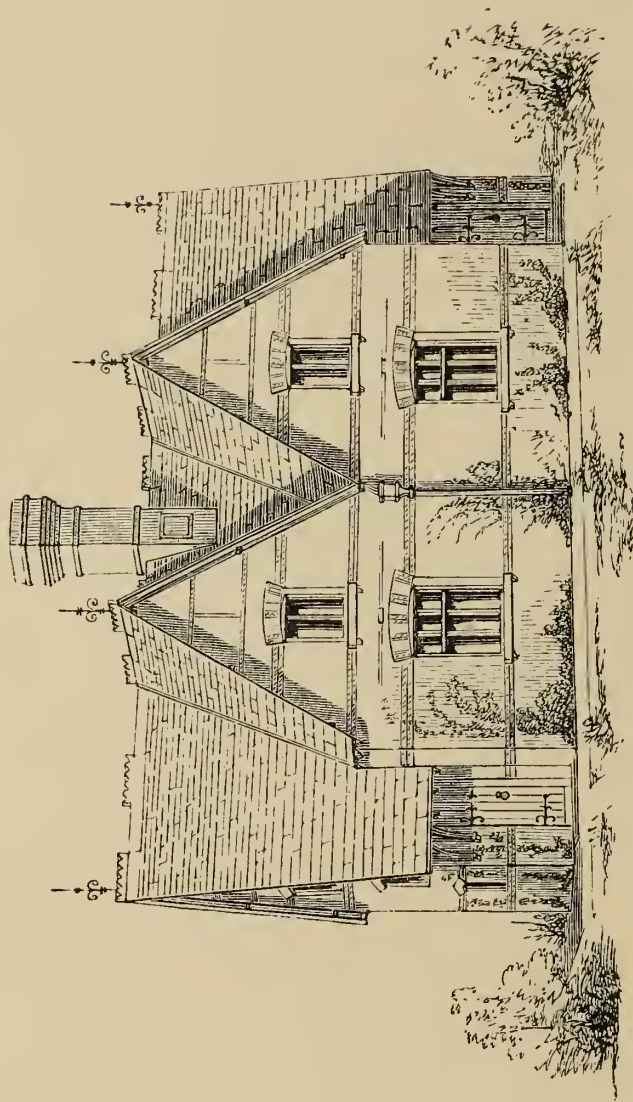


PLATE No. III.

PLATE III.

This Drawing shows a view of some Cottages erected at Clinch, near Pewsey, Wilts, for The Most Noble the late MARQUESS OF AILESBUURY, K.G.

EACH cottage contains, on the ground-floor, an entrance-porch and staircase, with living-room and scullery, the two latter entering off the entrance-porch, having a pantry and woodhouse adjoining; the chamber-floor contains a parents' bedroom, and a boys' and girls' bedroom, of good dimensions; the outbuildings are placed at a healthy and convenient distance in the rear of the cottages, containing the accommodation before mentioned. These cottages are finished in every respect similar to those previously described, having rain-water tanks, drainage, wells, &c., complete, and having in addition a simple and economical system of warming and ventilation (see description and plate in the latter part of the book), by which method a considerable amount of fuel can be saved, and a large portion of the heat from the fireplaces economised and applied to warming and ventilating these rooms, as well as the bedrooms immediately over them, securing a steady admission of rarefied air, and maintaining a constant change of atmosphere. These cottages have been built of the materials and in the manner before described.

PLATE IV.

This Drawing shows a Group of Cottages erected near the Railway Station at Great Bedwyn, Marlborough, Wilts, for The Most Noble the late MARQUESS OF AILESBUURY, K.G.

GROUPS of cottages, if well arranged, can be made pleasing and picturesque, while at the same time they may be composed of various models. In this sketch the two centre blocks of cottages have two of the bedrooms up-stairs and one on the ground-floor. The block at each end is arranged with all the bedrooms up-stairs. This group is well situated on a rising ground facing the railway station on the Reading and Devizes line, and, like a number of other cottages recently erected in the same village from the author's designs, shows that the comfort and welfare of the tenants have not been neglected by the noble owner of this extensive property.

The plans have been approved of by the Board of Agriculture. The cost of this group of four pairs of cottages amounted to about £1350.



PLATE No. IV.

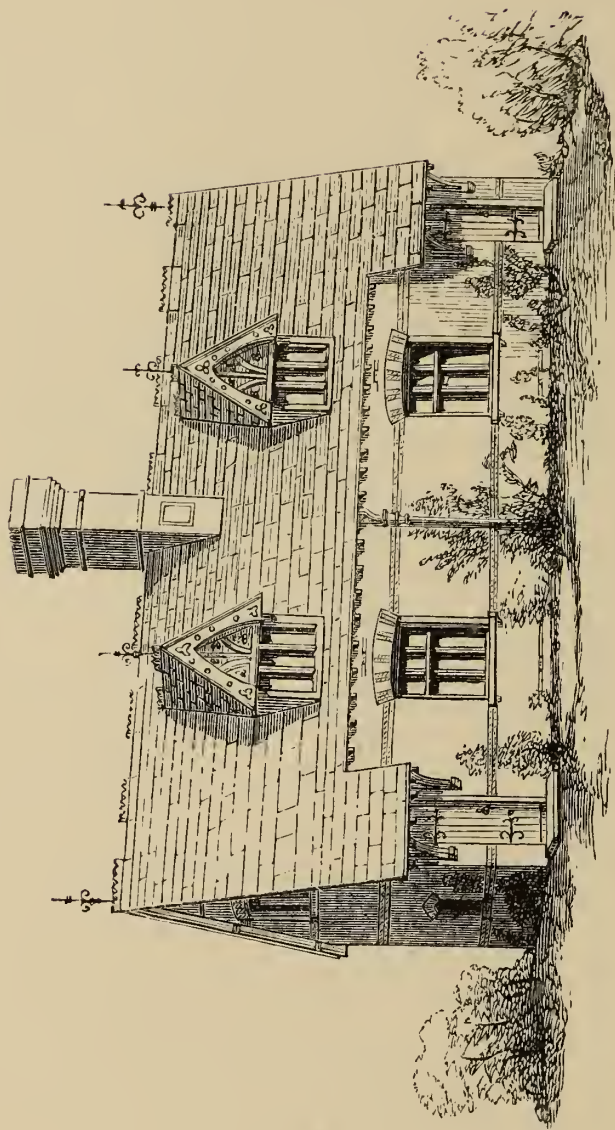


PLATE No. V.

PLATE V.

This Drawing shows a view of some Cottages designed for and intended to be built in Savernake Forest, by The Most Noble the late MARQUESS OF AILESBUURY, K.G.

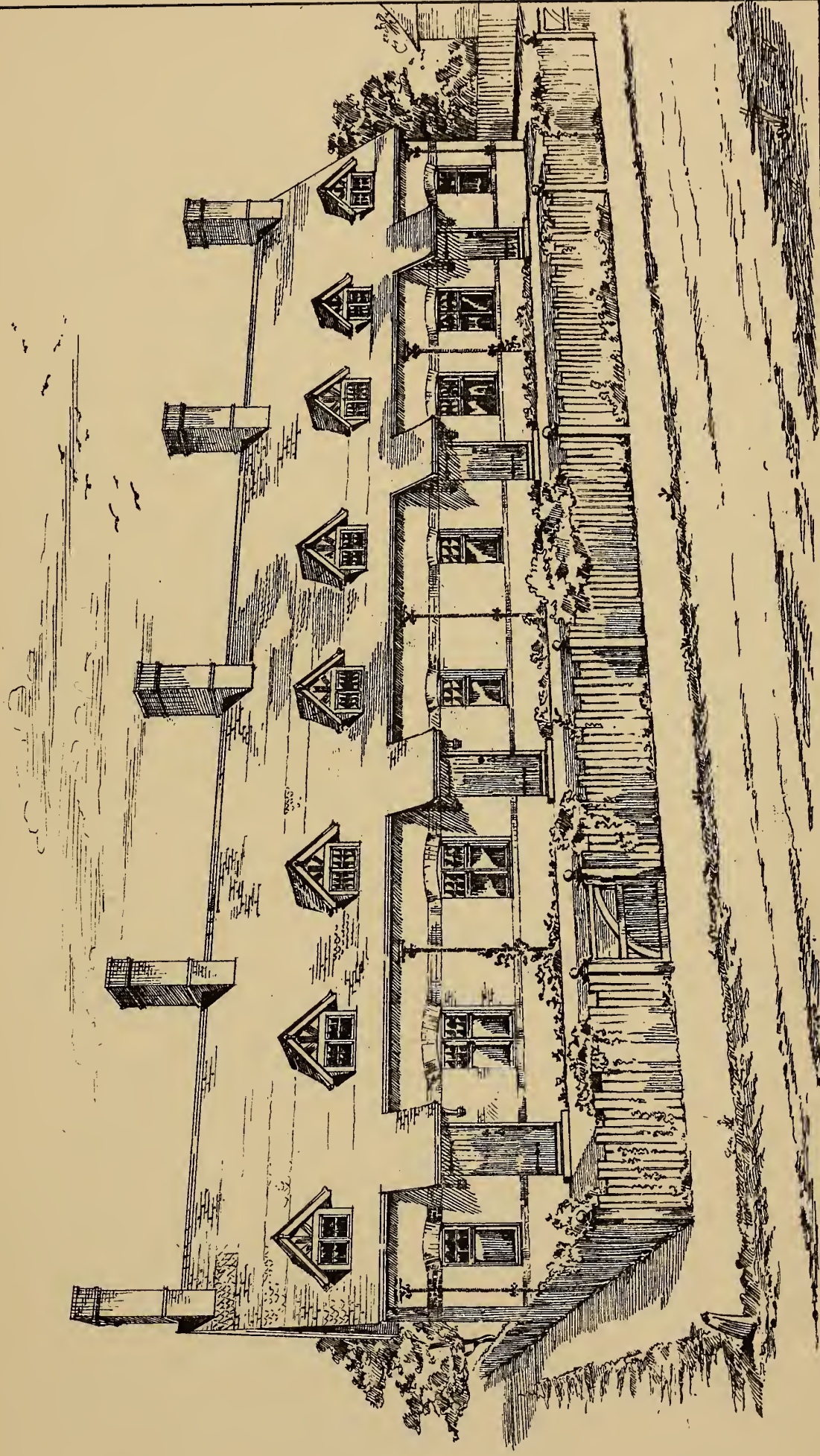
EACH cottage contains on the ground-floor an entrance-porch, staircase, living-room, and scullery, with pantry and fuel-house adjoining; the chamber-floor contains a parents' bedroom, with boys' and girls' bedroom of good proportions; the outbuildings embrace the conveniences before enumerated, placed at a convenient distance from the cottages.

PLATE VI.

This Sketch shows a Block of Four Cottages, erected in the Village of Great Bedwyn, near Marlborough, Wilts, by The Most Noble the late MARQUESS OF AILESBUURY, K.G.

EACH cottage contains a living-room, scullery, and three bedrooms —one of the bedrooms being placed on the ground-floor. The cottages have a complete equipment of outbuildings, and have been erected with bricks made on the property, covered with Bridgewater roofing-tiles. These cottages stand on an elevated and healthy situation, and are finished in the foreground with a neat rustic fence on a dwarf wall. The system of ventilation hereafter described has also been applied to these dwellings.

BLOCK OF FOUR COTTAGES • PLATE 6



BLOCK OF FOUR COTTAGES • PLATE 7



PLATE VII.

Block of Cottages erected at Althorp, Northamptonshire, for The Right Honourable the EARL SPENCER, K.G.

THIS plate shows a perspective view of a block of four cottages, erected at Althorp for the Right Honourable the Earl Spencer, K.G. Each cottage contains an outside porch, with inner porch and staircase, living-room, scullery, and three well-proportioned bedrooms, with a commodious linen-closet. The cottages have been erected of local bricks, the external walls being constructed hollow to prevent damp; and the roofs are covered with ornamental tiles, laid to pleasing and effective patterns, finished with crested ridge, with projecting eaves, gables, and open timber porches.

The cost of this group, which was not built by contract, including complete outbuildings, water-supply, drainage, rain-water tanks, stoves and ranges, fixtures and fittings complete, the workmanship and materials being measured and valued at completion, was £512 for the four dwellings, or £128 per dwelling.

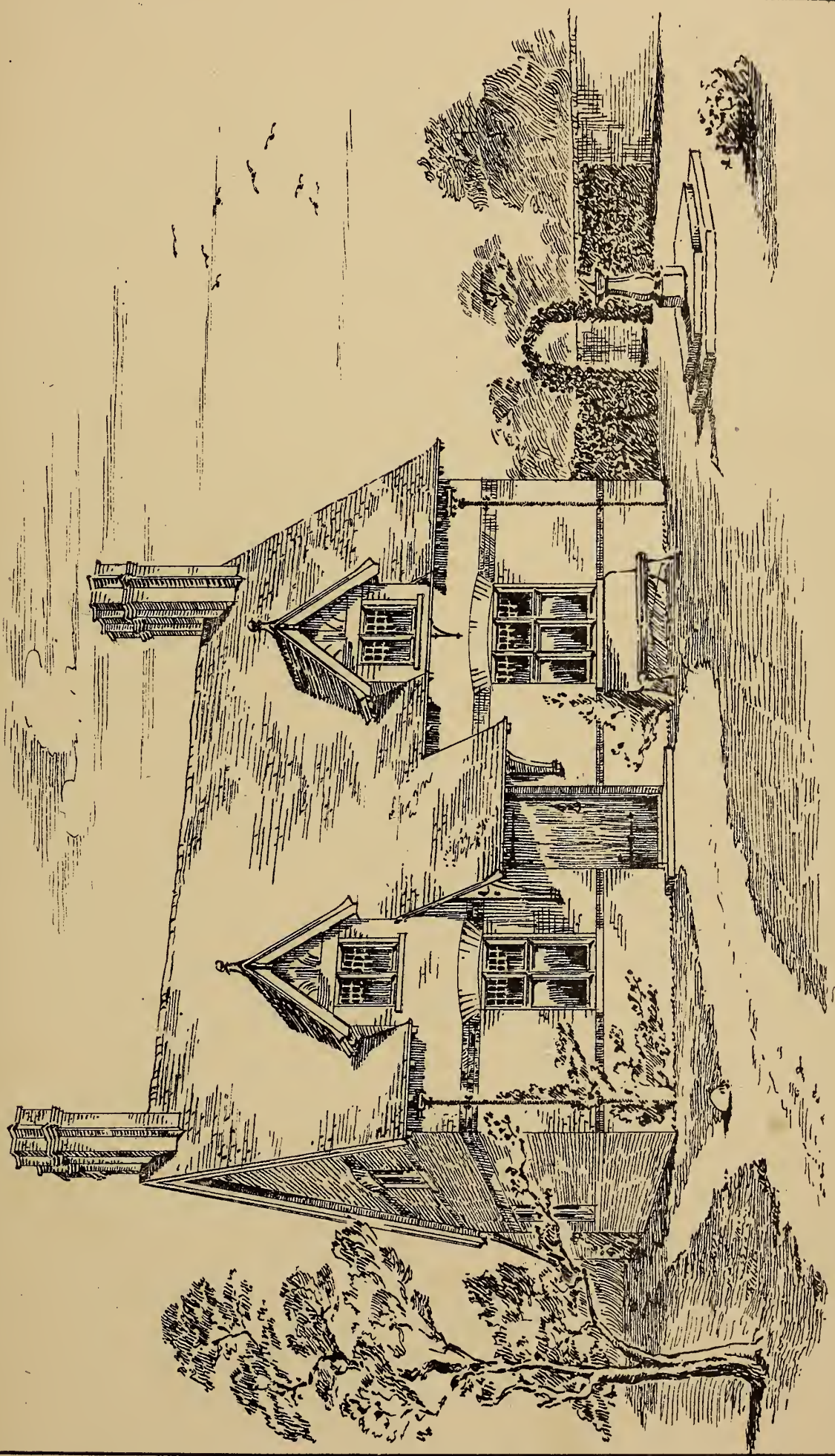
PLATE VIII.

Single Cottage, erected for Sir H. SELWIN IBBETSON, Bart., M.P.

THIS single cottage has been erected in one of the villages on the Down Hall Estate, near Harlow, Essex, for Sir Henry Selwin Ibbetson, Bart., M.P. It contains a convenient living-room, bedroom, entrance-porch, stairs, and large store-closet on ground-floor, with scullery, pantry, and woodhouse in rear; the chamber-floor includes two good-size bedrooms.

This cottage has been built with white perforated bricks from Cambridge, relieved with bands and arches of dark-red bricks; the roof is covered with Huntingdonshire tiles of a dark-brown and brindle colour, in pleasing and simple patterns. The cottage is thoroughly drained, and the rain-water from roof is conveyed to a tank for domestic use; there are suitable outbuildings within a moderate distance in rear of the dwelling.

SINGLE COTTAGE · PLATE 8



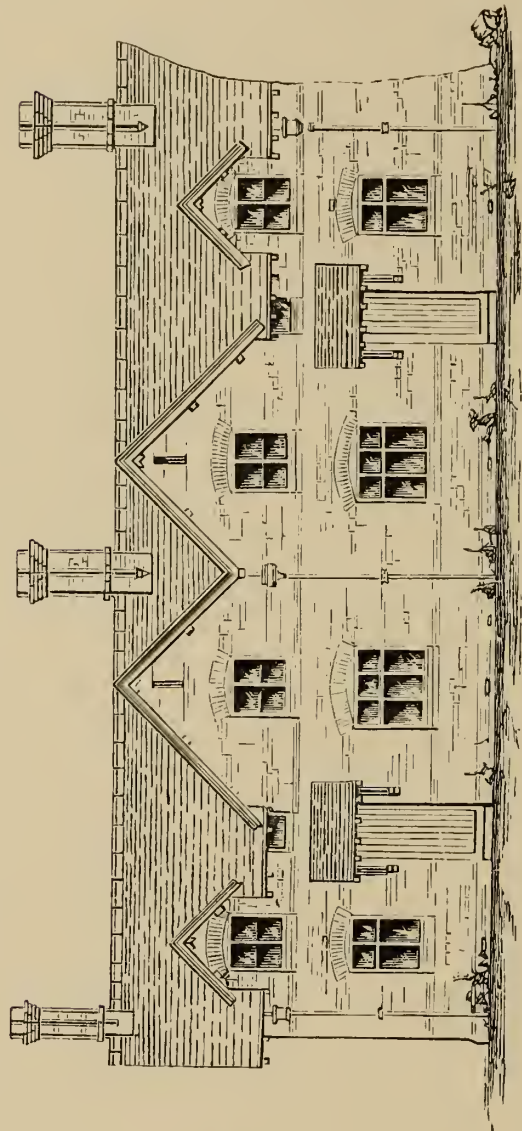


PLATE IX.

Cottages erected for THE SALISBURY AND YEOVIL RAILWAY
COMPANY.

THIS geometrical view shows one half of a group of four cottages erected, from Mr Birch's plans, by the Salisbury and Yeovil Railway Company for the use of their workmen. Each cottage contains a living-room and bedroom on the ground-floor, with a scullery, pantry, and woodhouse in rear, and a good store-closet under stairs; the chamber-floor contains a parents' and girls' bedroom; the out-buildings, which are erected in the rear of the cottages at end of garden, comprise a piggery, privy, cesspit and ashpit, to each cottage; the living-rooms and bedrooms have deal floors, and all the other parts have tile floors; the living-rooms are fitted with cottage-ranges, having ovens, and the bedrooms have small firelump cottage-grates; the sculleries are provided with washing-coppers and sinks; the rain-water is conveyed to tanks for domestic use, having a pump fixed over each sink in scullery; the living-rooms are provided with dwarf cupboards on each side of fireplace, and have book-shelves fixed over them; the walls of the living-rooms and bedrooms are plastered and coloured, and those of the sculleries, outbuildings, &c., are limewhited. These cottages have been erected with local bricks, the external walls being constructed in two thicknesses of $4\frac{1}{2}$ -inch brickwork, with a space of 3 inches between to prevent damp, well bonded together with purpose-made cast-iron ties; the roofs are covered with Bridgewater tiles, laid in bands of plain and ornamental patterns, and finished with a crested ridge-tile; the projecting portion of roof at eaves, gables, and dormers is lined with wrought boarding and finished with barge rafters. The entrance-porches have projecting hoods, supported on ornamental wood brackets.

To ensure dryness the walls of these cottages have a proper damp-course at floor-level, and due attention has been paid to ventilation. One well is provided for the use of the four cottages.

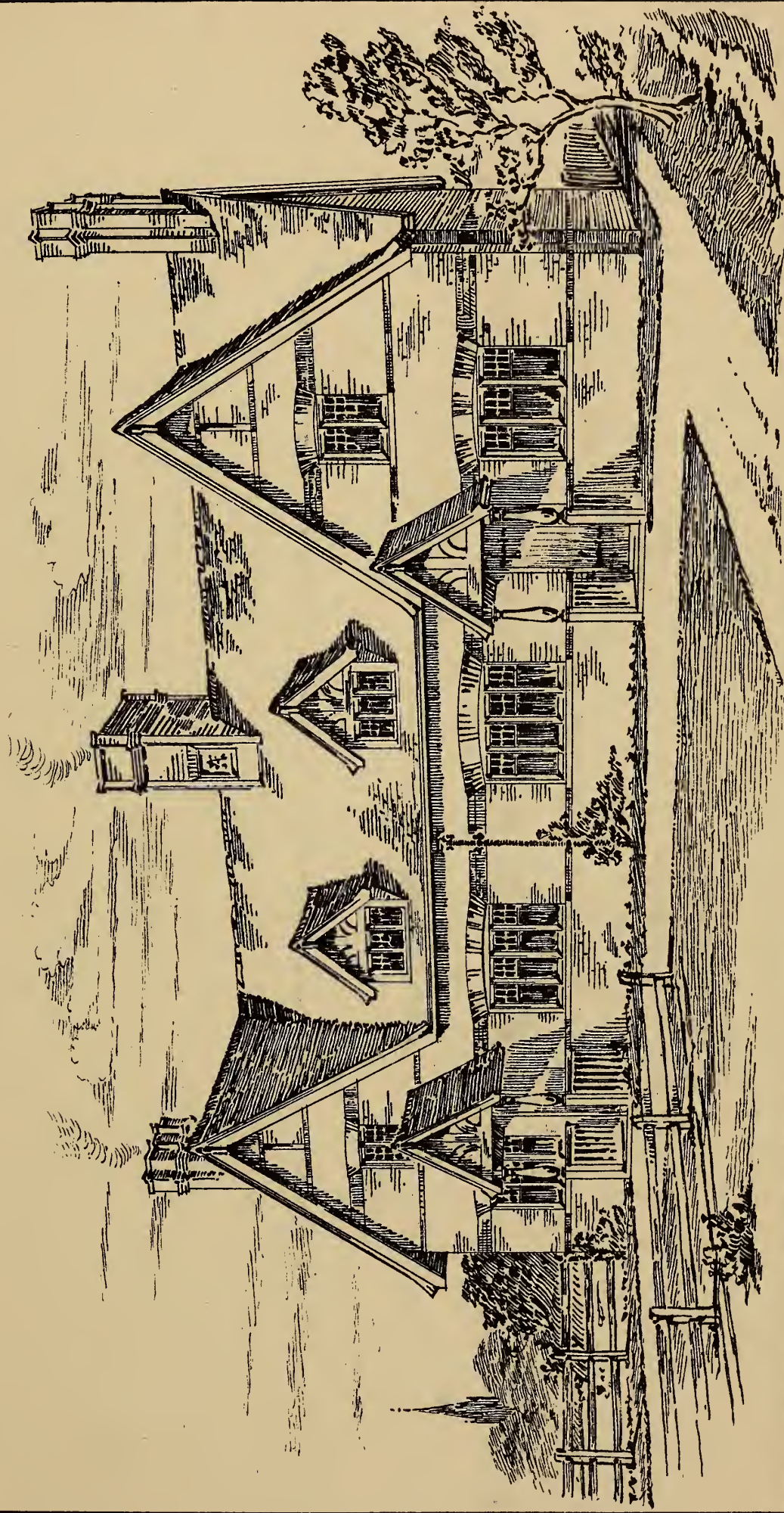
PLATE X.

*Cottages designed for HUGH MAIR, Esq., and proposed to be built
at Dartmouth, Devonshire.*

THESE dwellings were intended to have been built (with others of an approved description) on sites overlooking the river Dart, in close proximity to the town, for the accommodation of the poor of Dartmouth. The plans provided each dwelling with a convenient living-room, bedroom, and scullery, pantry, fuel-house, &c., on the ground-floor, with convenient offices in the rear, and well-proportioned bedrooms up-stairs. These cottages were intended to have been built of neatly hammer-dressed random-coursed rubble walling, with dressings to doors and windows of local stone, and roofed with Bridgewater tiling in bands of plain and ornamental patterns, finished with a crested ridge-tile of approved pattern.

The cost of these cottages, if erected of brick, including out-buildings, water-supply, drainage, fixtures, and fittings complete, is estimated at from £300 to £350 per pair.

BLOCK OF TWO COTTAGES • PLATE 10



BLOCK OF FOUR COTTAGES • PLATE II

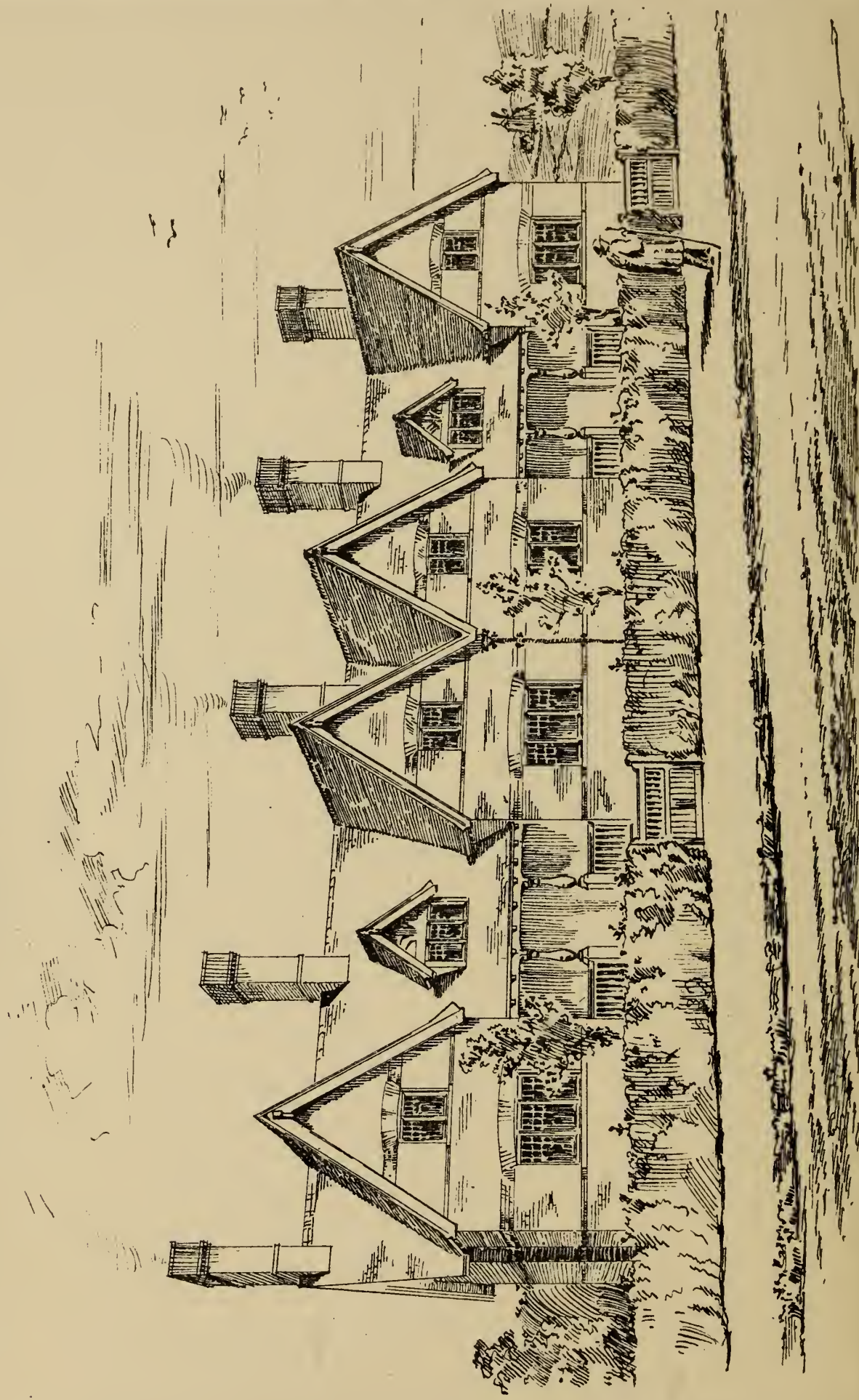


PLATE XI.

Block of Cottages at Hele, near Collumpton, Devonshire.

THIS block of cottages was designed for C. R. Collins, Esq. Each dwelling contains a living-room and scullery, with open verandah, entrance-porch, and staircase, pantry and fuel-house—the living-room and scullery each entering off the entrance-porch; the chamber-plan provides for a parents', boys', and girls' bedroom of good proportions, having fireplaces in each, and a good-sized linen-closet.

The cost of this group of four cottages, including outbuildings, water-supply, drainage, stoves and ranges, fixtures and fittings, &c., complete, was estimated at the sum of £600.

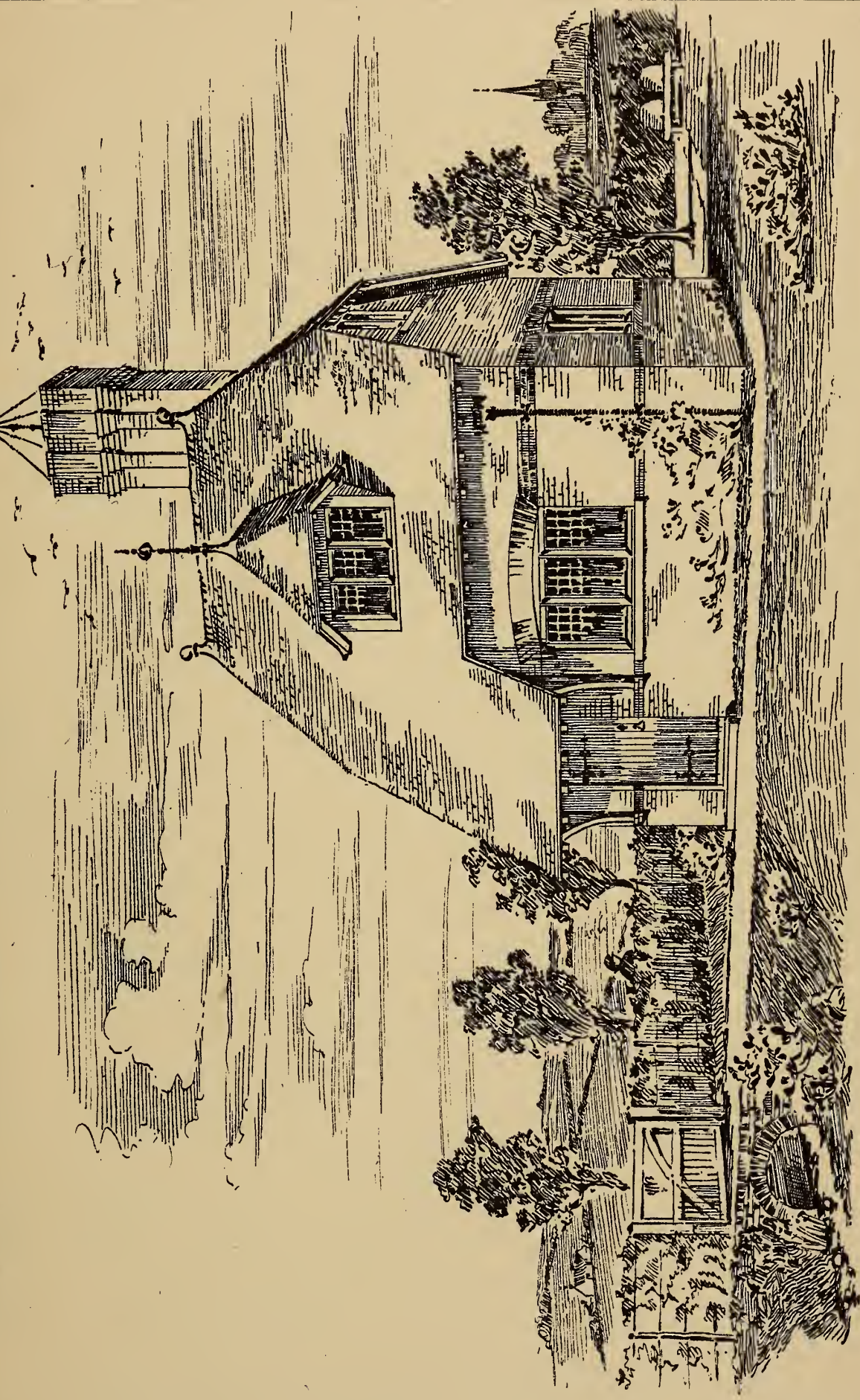
PLATE XII.

Design for a Single Cottage.

THIS view shows a design for a single cottage, containing an entrance-porch, staircase, living-room, and three bedrooms, with scullery, pantry, woodhouse, and outbuildings.

The cost of this cottage, built of brick and covered with tiles, including well, drainage, fittings, &c., complete, is estimated at £150.

SINGLE COTTAGE · PLATE 12



SINGLE COTTAGE · PLATE 13

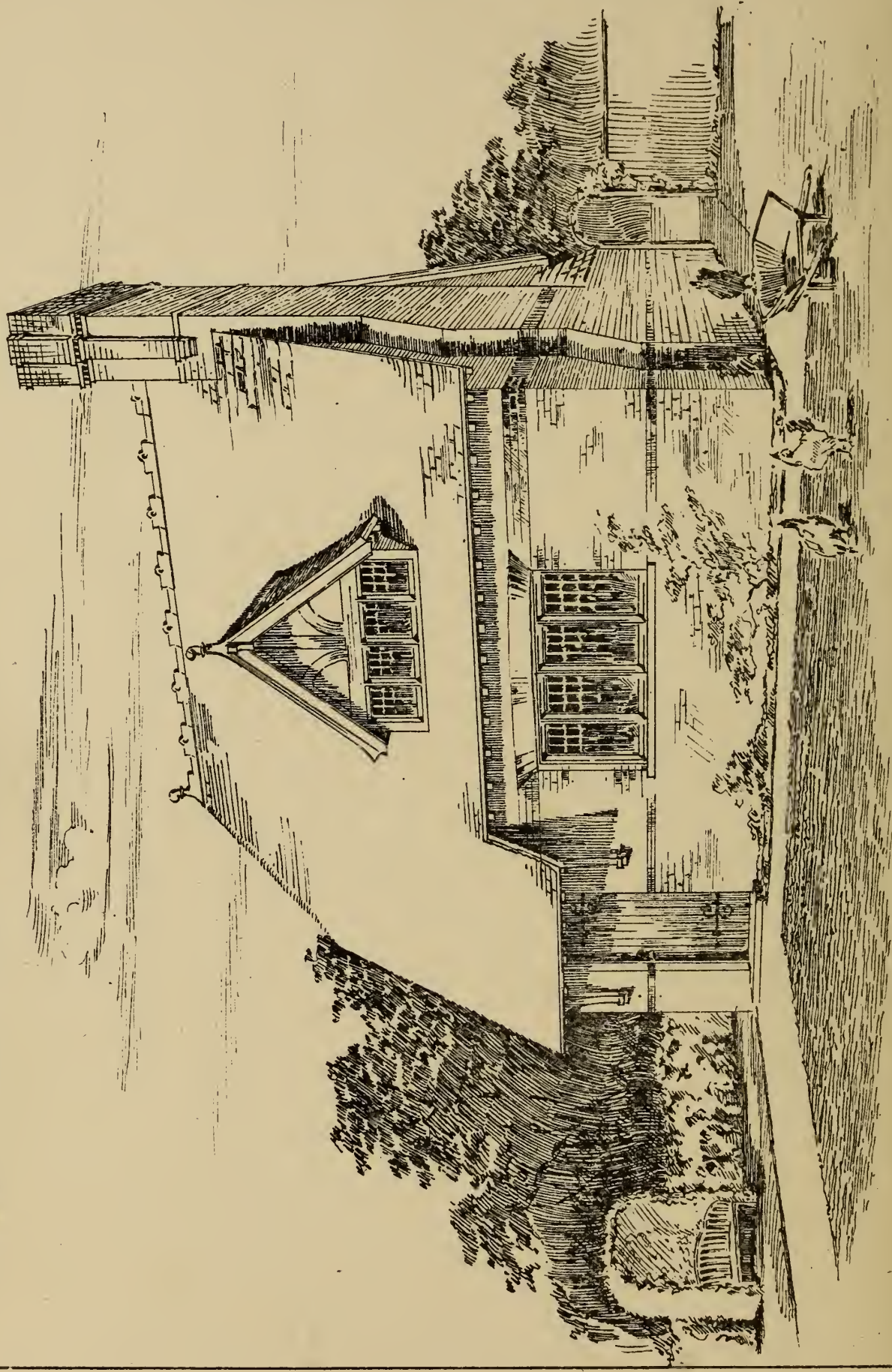


PLATE XIII.

Design for a Single Cottage.

THIS view shows a design for a single cottage, containing an accommodation equal to the last-mentioned design. This design, as well as the last described, can be arranged to contain one, two, or three bedrooms.

The cost of executing this design would be somewhere about £150.

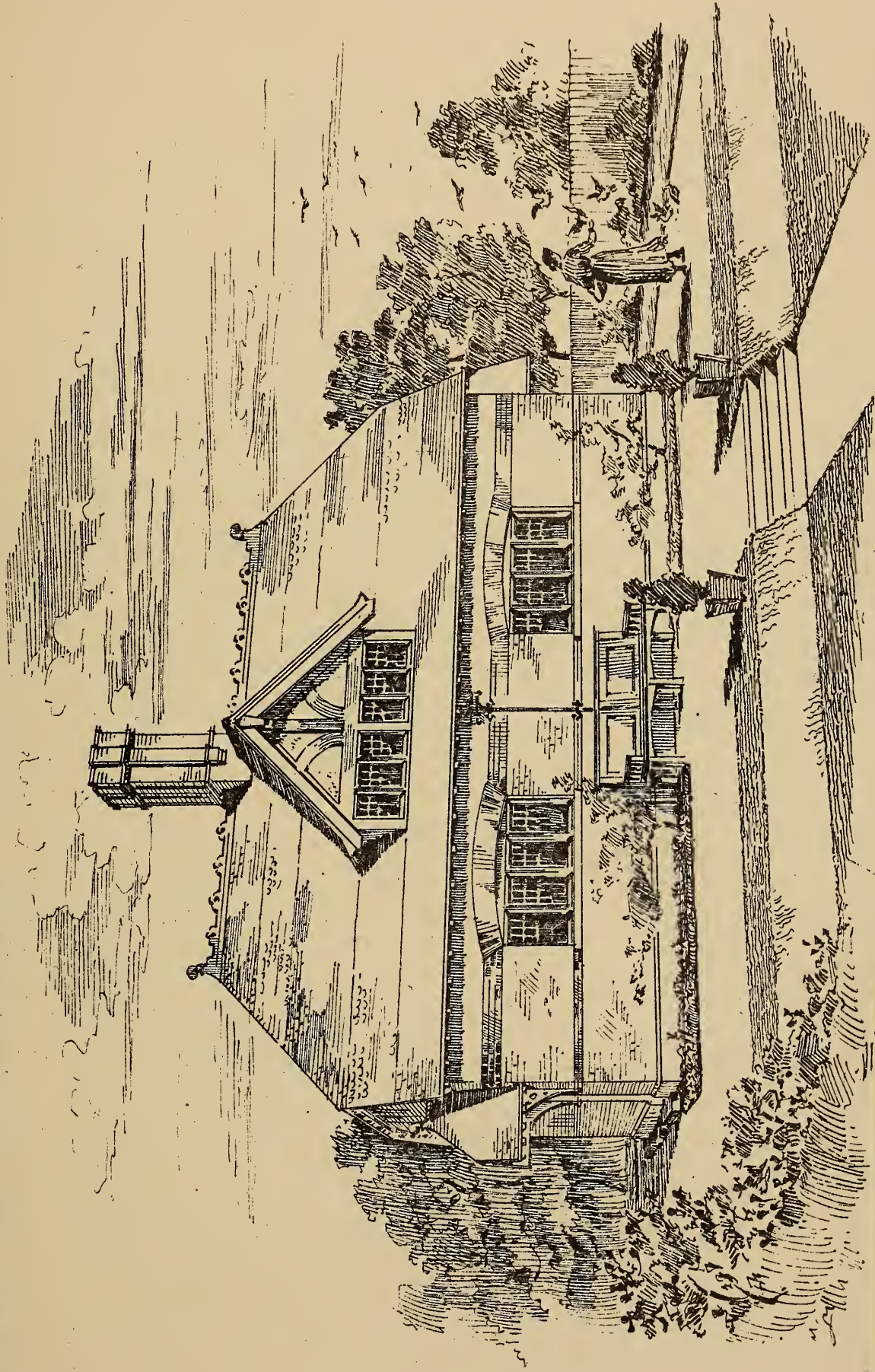
PLATE XIV.

Design for a Pair of Labourers' Cottages.

THIS view shows a design for a pair of labourers' cottages, based on the premiated plan. Each cottage would contain three well-proportioned bedrooms, entrance-porch, staircase, living-room, scullery, well-ventilated pantry, woodhouse, and outbuildings complete.

The cost of these cottages, per pair, built of brick, with hollow walls and covered with tiles, including well, drains, fixtures, and fittings complete, is estimated at £300.

BLOCK OF TWO COTTAGES • PLATE 14



BLOCK OF THREE COTTAGES · PLATE 15

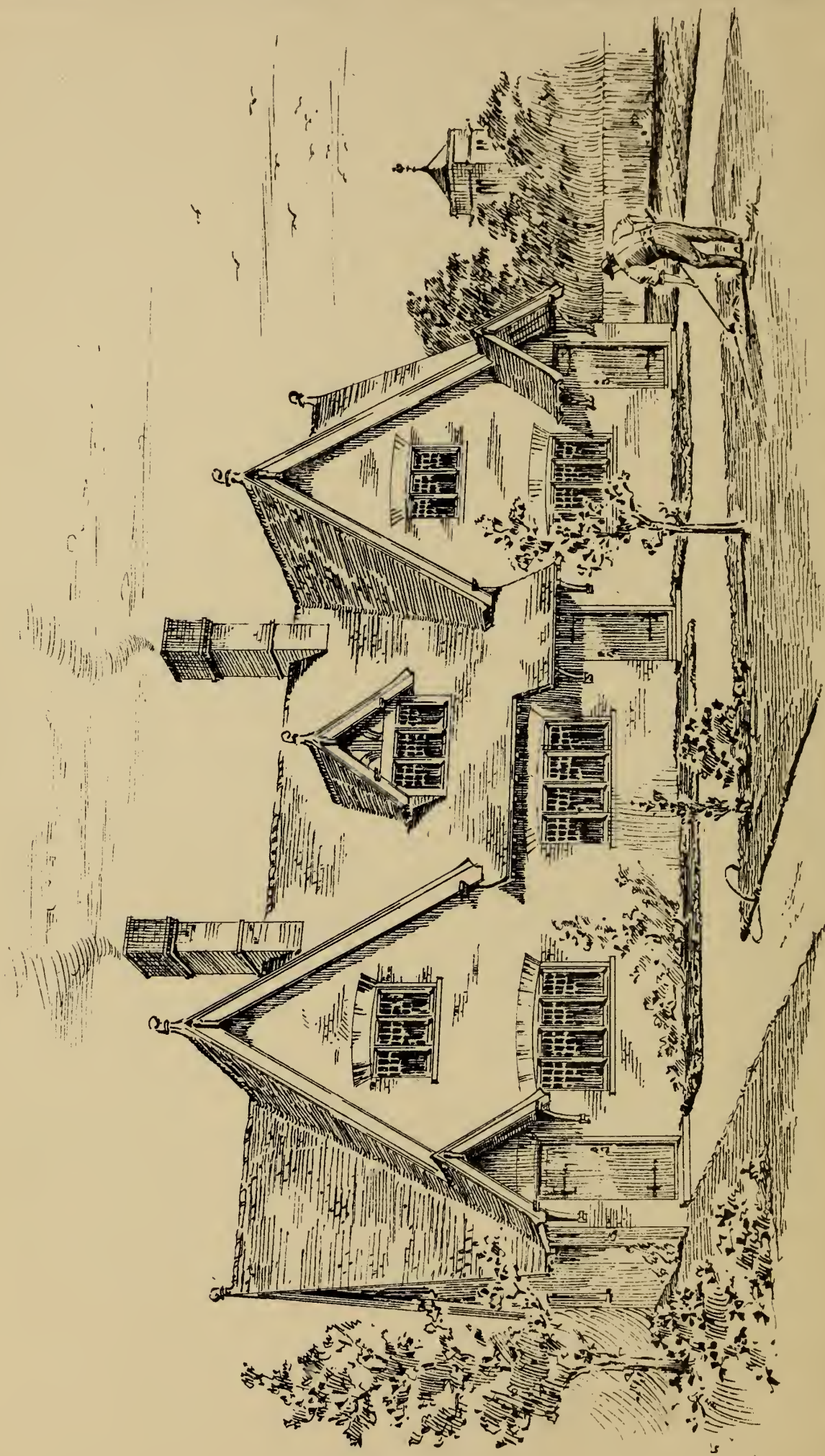


PLATE XV.

Design for a Block of Three Cottages.

THIS plate shows a view of a block of three cottages, the centre cottage containing two bedrooms, but can be arranged to afford accommodation for one, two, or three bedrooms ; and the end cottages each contain three bedrooms, with living-room, scullery, entrance-porch, stairs, and outbuildings.

The cost of this group, built of brick, with hollow walls and covered with tiles, with drainage, water-supply, stoves and ranges, fixtures and fittings complete, ready for occupation, is estimated at from £380 to £450.

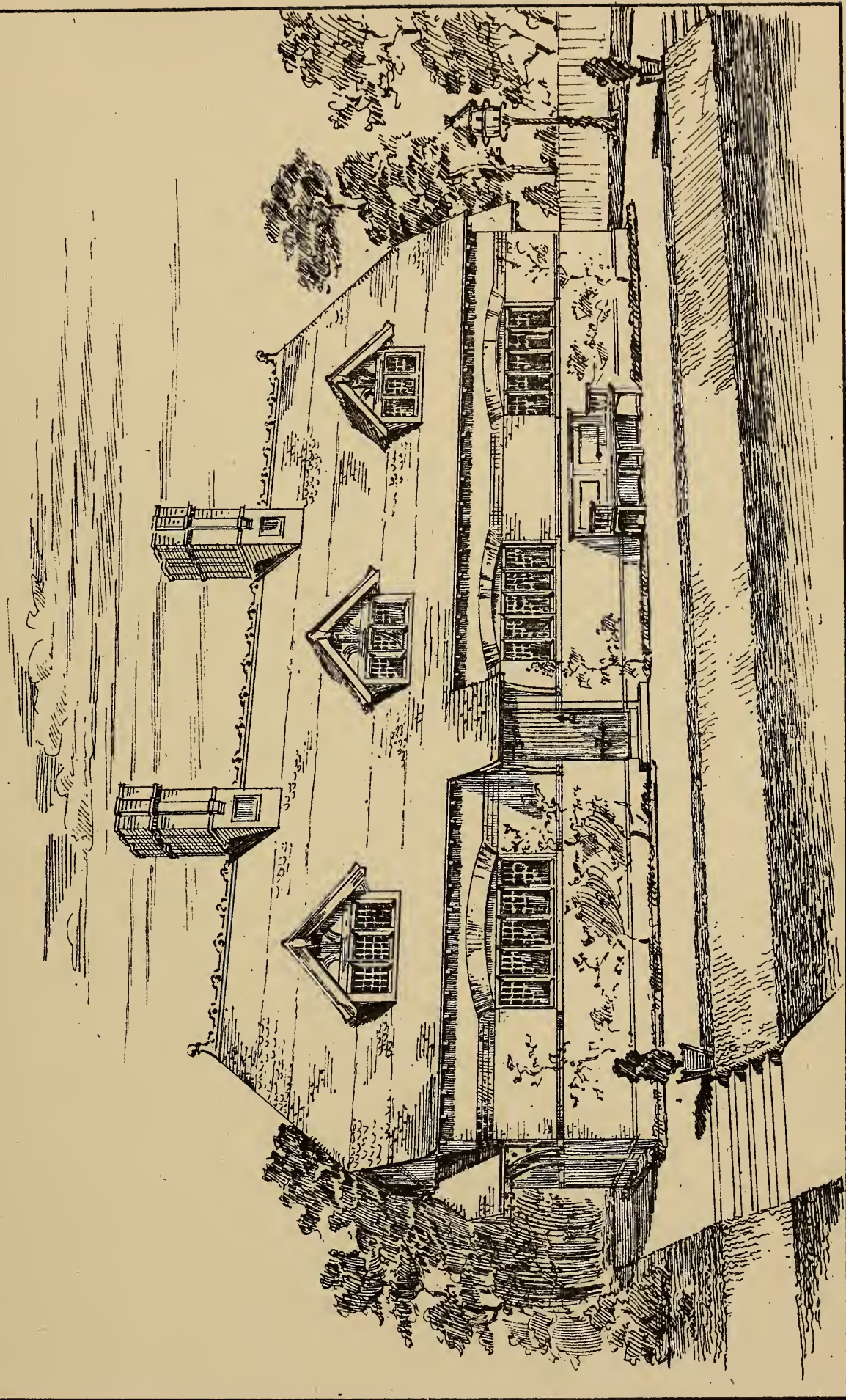
PLATE XVI.

Design for a Block of Three Cottages.

THIS plate shows view of a block of three cottages, arranged on the plan premiated by the Society of Arts. Each dwelling provides for three well-proportioned bedrooms, with living-room, scullery, well-ventilated pantry, fuel-house, entrance-porch, stairs, and outbuildings.

The cost of this group, built of brick and tile, with hollow walls, with water-supply, drainage, and fittings complete, fit for occupation, is estimated at £380 to £430.

BLOCK OF THREE COTTAGES • PLATE 16



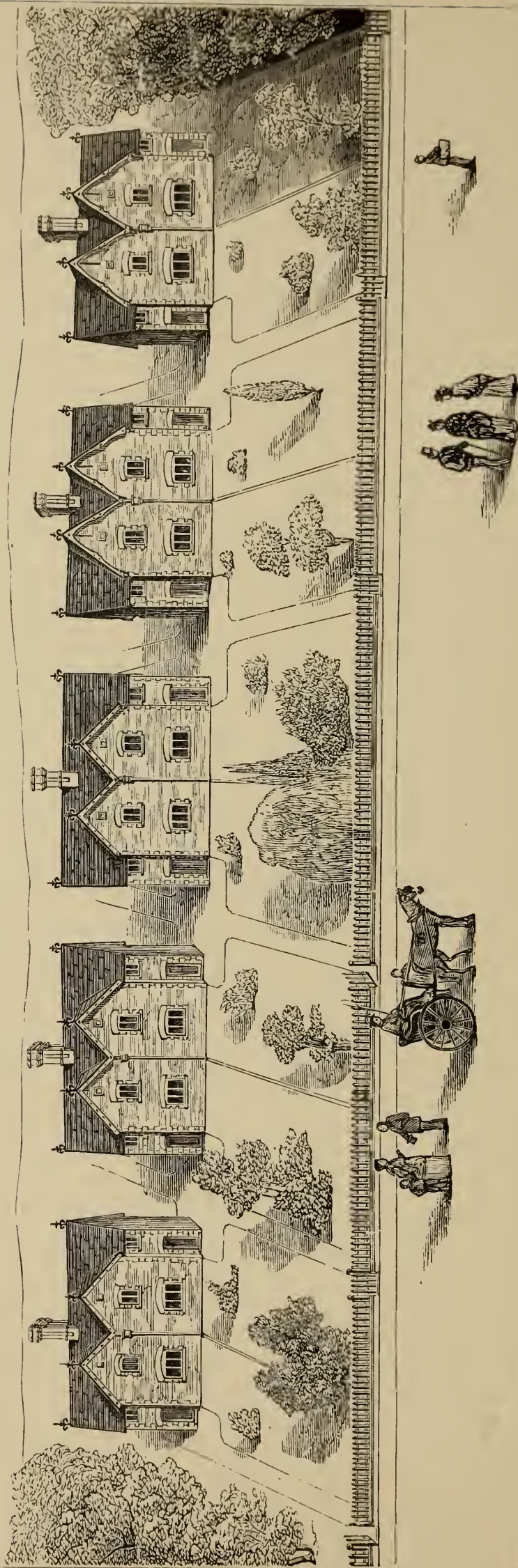


PLATE NO. XVII.

PLATE XVII.

Group of Cottages at Bocking, Essex.

THIS view shows a group of mechanics' cottages. Each living-room contains a cubical space of about 1550 feet, each parlour about 1260 feet, and each of the three bedrooms an average of about 1250 feet. The dwellings have been erected with red bricks, having white-brick dressings to doors, windows, angles, &c.; the roofs are covered with ornamental tiles. The external walls have been constructed hollow. Provision has also been made for warming and ventilation. The cold air is conducted from the outside of the building, by means of a flue, to the back of the living-room and parlour fireplaces; it is there warmed by contact with the firelump back of the stoves, and thence passes through flues to the bedrooms above. In each room valves communicate with these flues, admitting the warmed air at pleasure; by this means a considerable amount of heat is utilised which would otherwise be wasted, and a constant circulation of air is maintained. Outbuildings, comprising a scullery, coalhouse, and water-closet, are built in the rear of the cottages.

The cost of these five pairs of cottages, including outbuildings, drainage, water-supply, fences, and paths, completed, ready for occupation, amounted to £2723, or £504, 10s. per pair.

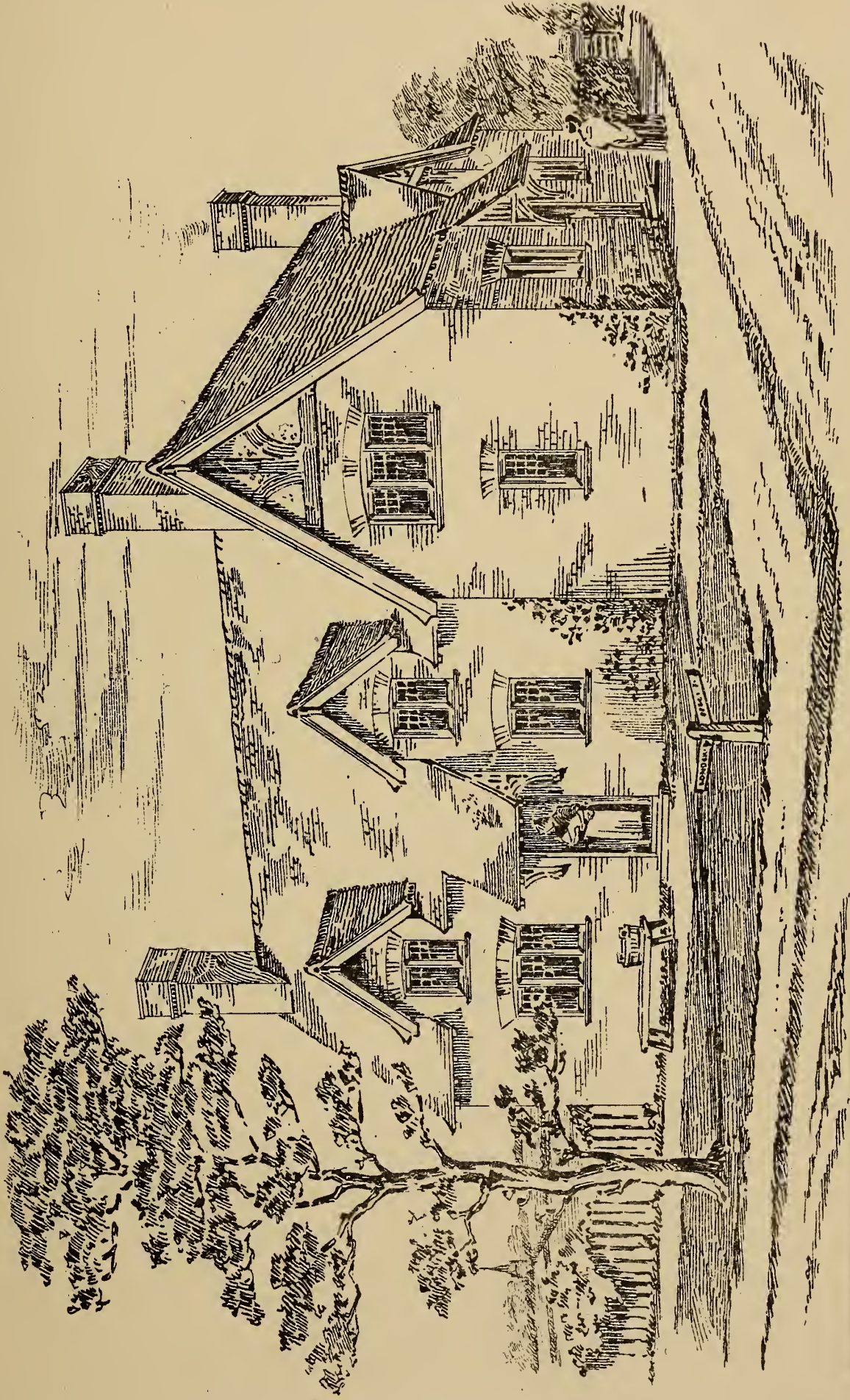
PLATE XVIII.

Block of Two Cottages at Wherstead, Suffolk.

THIS block of cottages, with some single cottages and lodge, were built a few years ago on the Wherstead Estate by Charles Dashwood, Esq. This block had a commanding site at the junction of two roads. Each house has a living-room, scullery, pantry, three bedrooms, porch, and staircase, and a complete equipment of offices.

The cost of building the block was about £400. Similar cottages have been built on the Parkhill property in Yorkshire, and on the Wolseley property in Staffordshire.

BLOCK OF TWO COTTAGES · PLATE 18



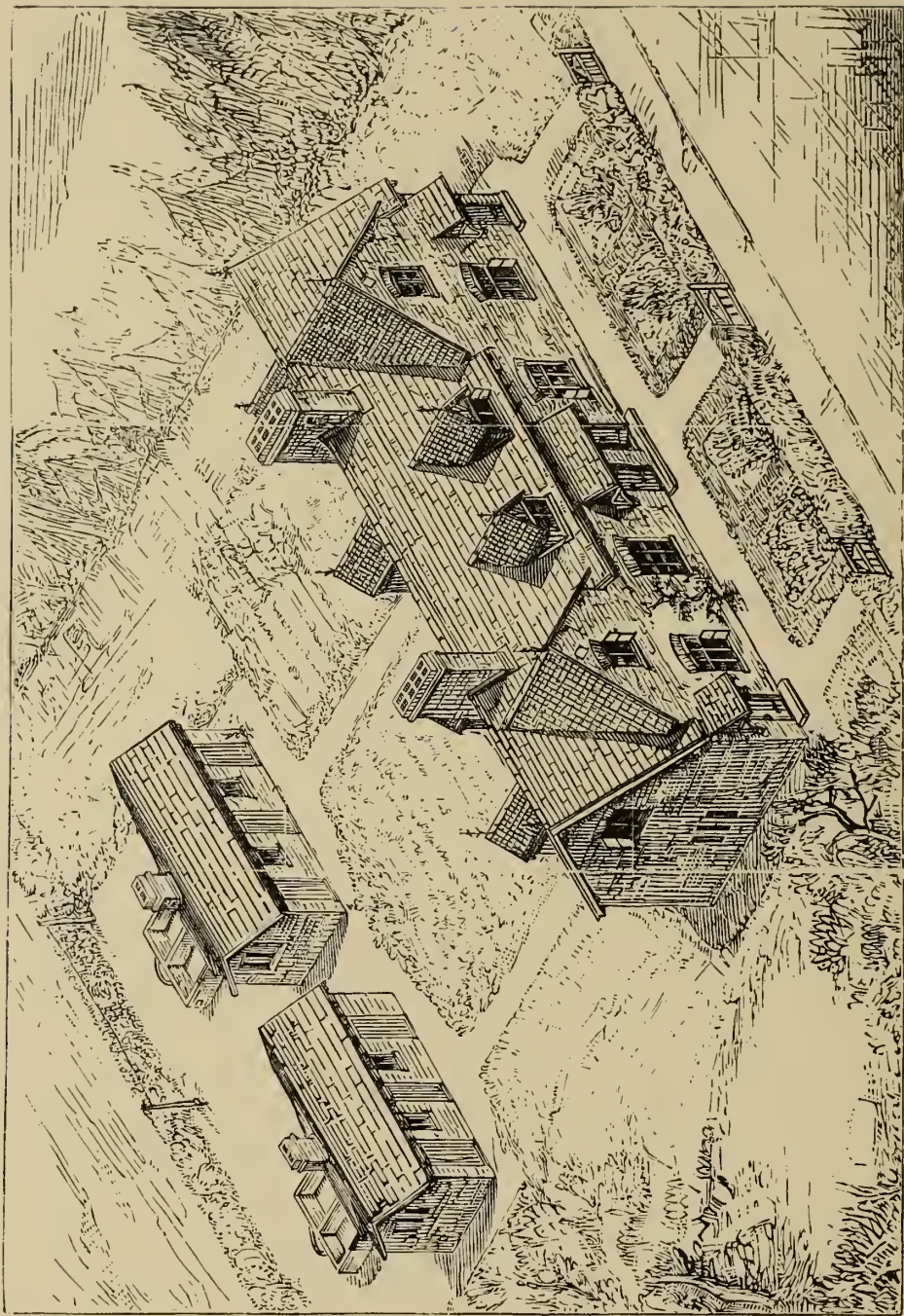


PLATE XIX.

Block of Four Cottages at Everleigh, Wilts.

THIS block of cottages has been recently erected on the Everleigh Manor Estate, near Marlborough, Wilts, by Charles Wm. Curtis, Esq. Each dwelling has an entrance-porch, staircase, living-room, scullery, pantry, and three bedrooms, with coal and wood house, piggery, water-closet, and wash-house to each cottage. Each house has a water-supply, is thoroughly drained and ventilated, and provided with all necessary fittings and conveniences.

The cost of the block of four cottages was £787.

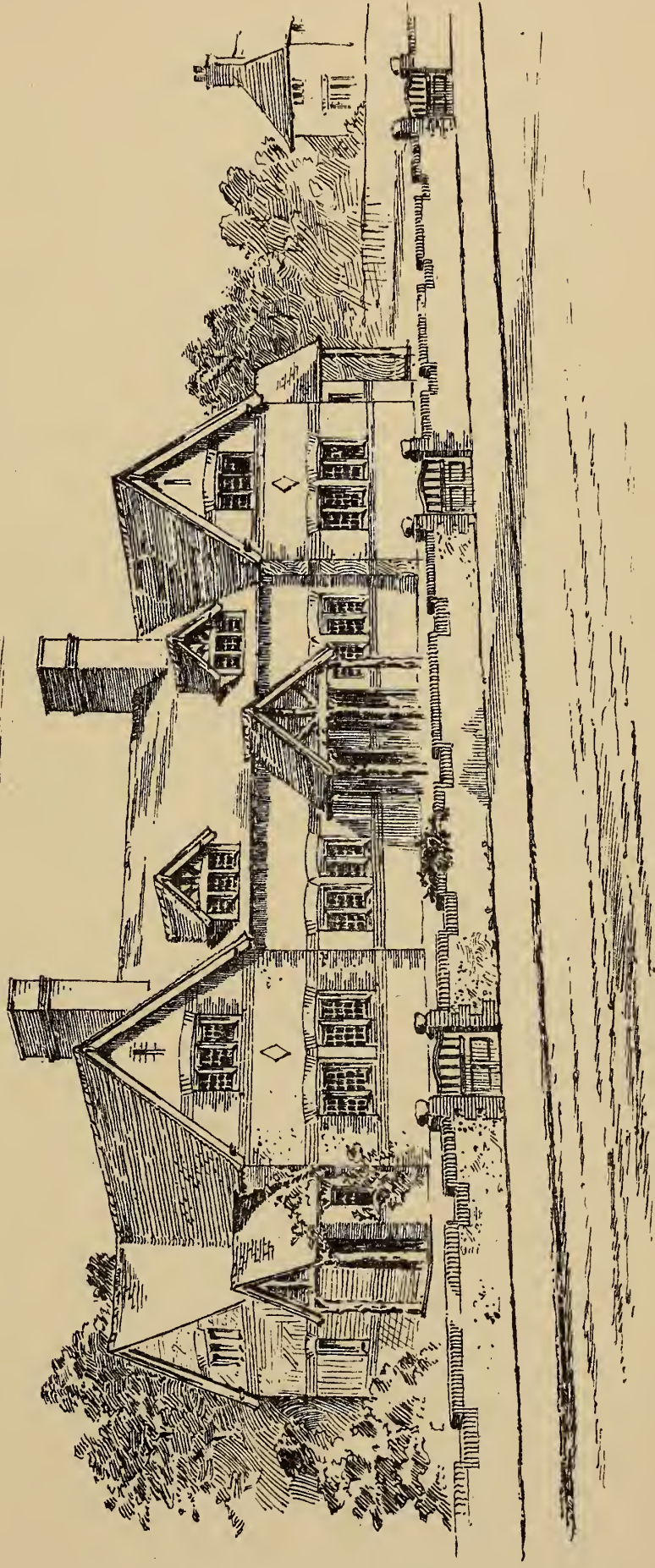
PLATE XIX_A.

Cottages on the Lulworth Estate, Dorsetshire.

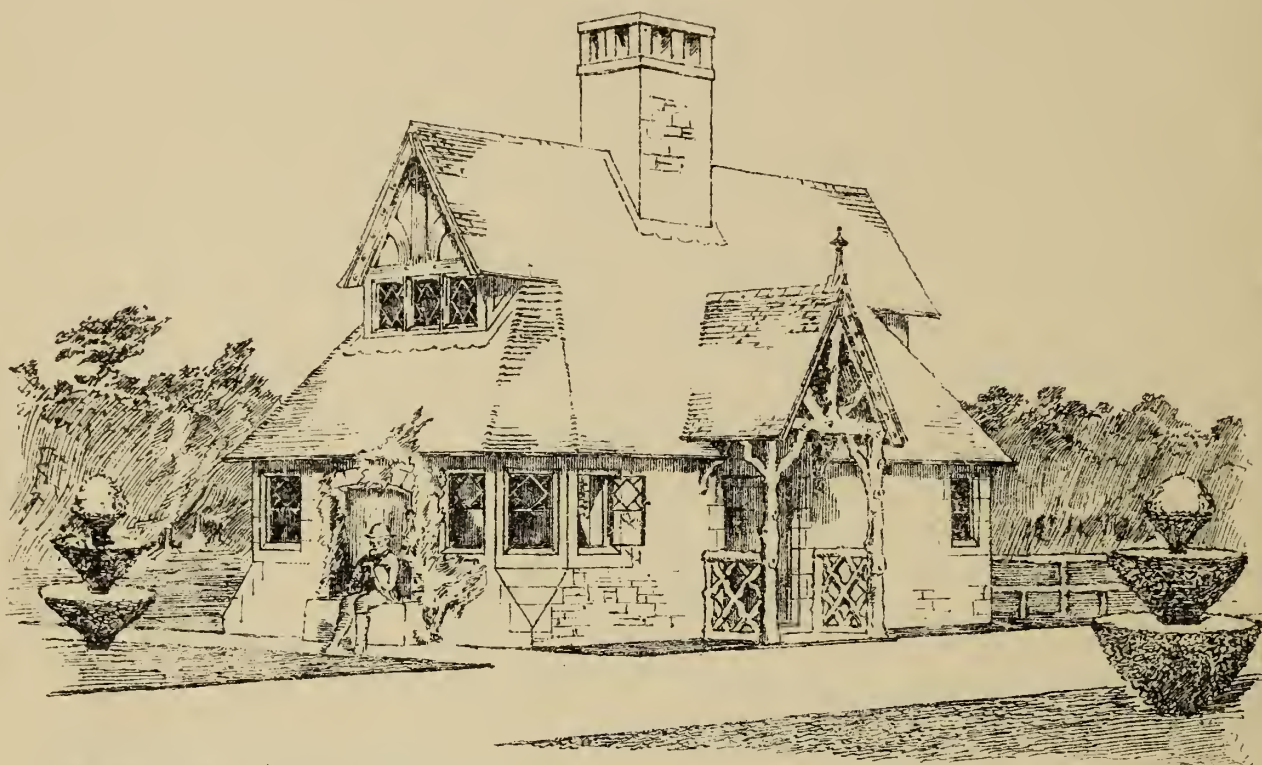
ERECTED from designs by the author, these cottages were recently built on the Lulworth Estate. The walls are built of flints, banded with red-brick string-courses; and the jambs of doors and windows, as well as the corners of building, are of red brick. The roof is tiled and made with projecting eaves. Every convenience supposed to be necessary for the comfort and health of the working classes in a rural district has been incorporated in this building, consistent, of course, with the usual motives of economy. The accommodation afforded is as follows: living-room, scullery, pantry, coal- and earth-closet, three bedrooms, and the usual appurtenances. The front entrance to each cottage is protected by an open porch, built of larch timbers, barked and varnished, and tiled roof.

The cost of the four cottages was about £600. The plans were approved by the Board of Agriculture.

COTTAGES · LULWORTH · DORSET · PLATE 195



COTTAGES · PARK HILL · YORKSHIRE · PLATE 19^B



The Head Game Keepers Lodge



The Keepers Cottages

PLATE XIX_B.

Group of Cottages and Gamekeeper's Lodge, Parkhill, Yorkshire.

THESE buildings were erected some years ago on the Parkhill Estate, for the head gamekeeper and estate labourers. The buildings have been erected with the fine sandstone for which this locality is known, and the roofs covered with Staffordshire tiling. The cottages contain a living-room, scullery, pantry, and three bedrooms, with the usual appurtenances, and form a rural feature on the outskirts of the demesne.

The cost was about £430. The plans were approved by the Board of Agriculture.

PLATE XX.

Cottages at Merton Hall, Norfolk.

THE views given in this plate are drawings of a butler's cottage, and a small residence for schoolmistress, built apart from each other. The former, which is situated on the borders of a game-cover, and in a beautifully sheltered position, is built of red-brick facing and clay-lump (obtained on the estate) to the chamber floor-level, and above that of half-timber framing, filled in with brick-nogging and cemented panels. The roof is covered with red tiles, and the timber-work picked out with dark-chocolate colour, the whole forming an agreeable combination. The accommodation provided in this cottage is as follows: porch, living-room, kitchen, pantry, lobby, three bedrooms, and the usual appurtenances. The treatment of the half-timber framing affords an opportunity for variety of colour and form, and harmonises with the surroundings, whilst an elaborate character is given to the shafts of chimney-stacks, so as to accord with the ancient and noble Elizabethan mansion to which this building is attached.

The schoolmistress's house is similarly built of the same materials, and externally after the same fashion. It contains living-room, kitchen, pantry, lobby, and appurtenances.

Compared with other buildings, these are the cheapest ever erected under my supervision, although it should be noted that every facility was given by the estate, who prepared the moulded bricks for the chimney-shafts, and provided for some other small contingencies.

The total cost of both buildings was only £392, including out-houses and well. The plans were approved by the Board of Agriculture.



BUTLER'S HOUSE · MERTON HALL

PLATE 20



SCHOOL MISTRESS' COTTAGE ·



FISHING LODGE ON THE
BLACKWATER
C. WATERFORD

PLATE 21



PLATE XXI.

Fishing-Lodge on the Blackwater, County Cork, Ireland.

THIS fishing-lodge, recently built on the Mocollup Castle Estate, County Cork, Ireland, for a tenant, is situated on the Blackwater, one of the finest salmon-rivers in Ireland, and commands one of the best portions of this famous salmon-stream. The fishing-lodge is built on a rising ground in the rear of Mocollup Castle, overlooking the Blackwater, with several fine views of the county of Cork. The building contains as follows: dining-room, library, fishing-tackle and smoking room, two gentlemen's bedrooms, and two servants' bedrooms, bath-room, water-closet, and the usual kitchen offices and appurtenances.

The building was built of local rubble-stone, rough cast, and covered with slates. The cost was £900.

PLATE XXII.

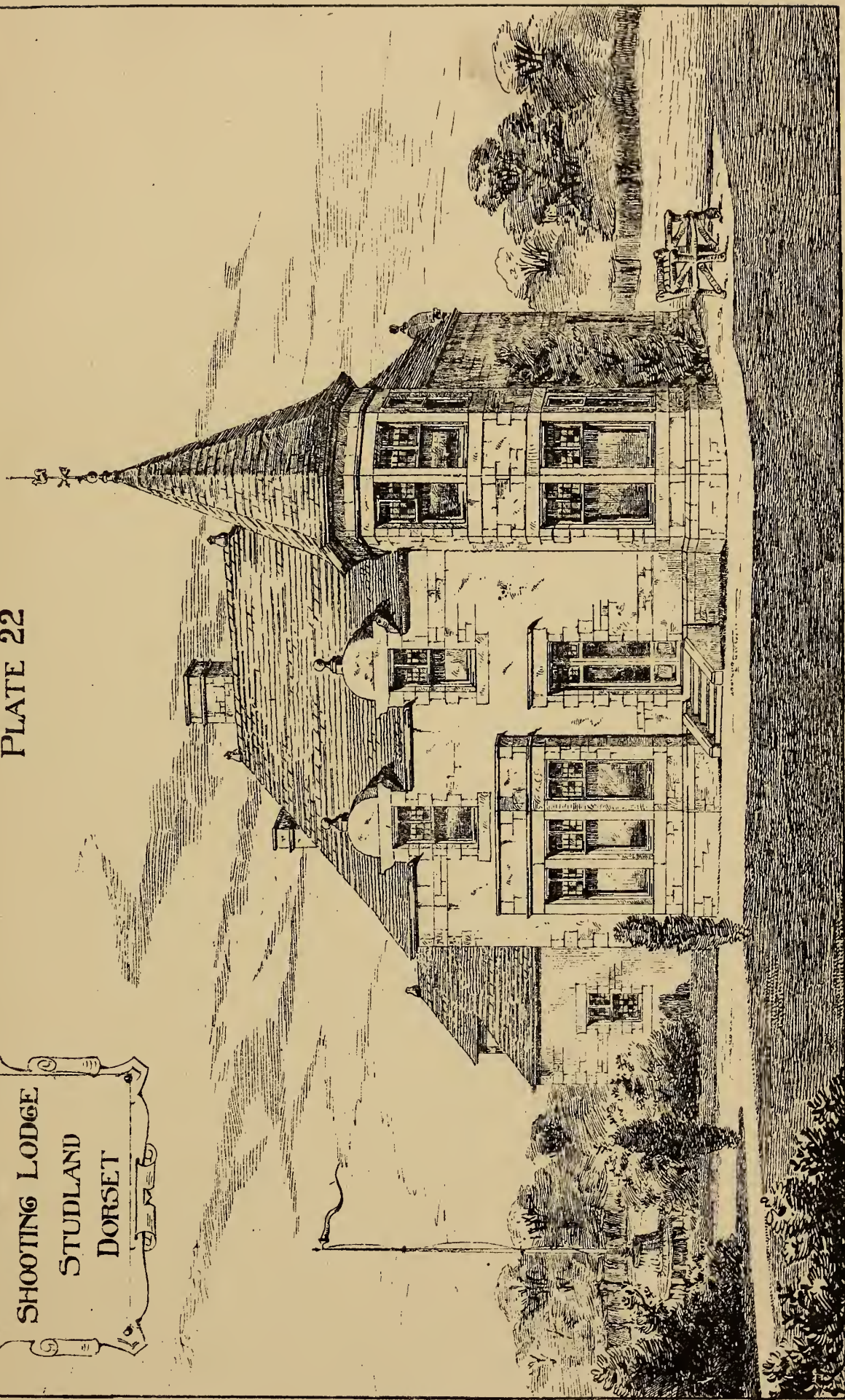
Shooting-Lodge, Studland, Dorsetshire.

THIS shooting-lodge was built a few years ago at Studland, in one of the most secluded and beautiful parts of Dorset. The building was specially designed for the site, and commands fine views of the Isle of Wight, &c. It is to be regretted that this retired and peaceful spot is about to be destroyed by the speculative builder—one of the loveliest and most picturesque spots in the country. The lodge was built of local stone, carted from Swanage to Studland, and the roofs are covered with the local stone slates. The building contains as follows: dining-room, drawing-room, morning-room, principal stairs, back-stairs, and kitchen offices, five bed- and dressing-rooms, water-closet, and two servants' bedrooms.

The cost was £1300.

SHOOTING LODGE
STUDLAND
DORSET

PLATE 22



TEA ROOM & ORNAMENTAL DAIRY • LUTON HOO
BEDS. PLATE 23

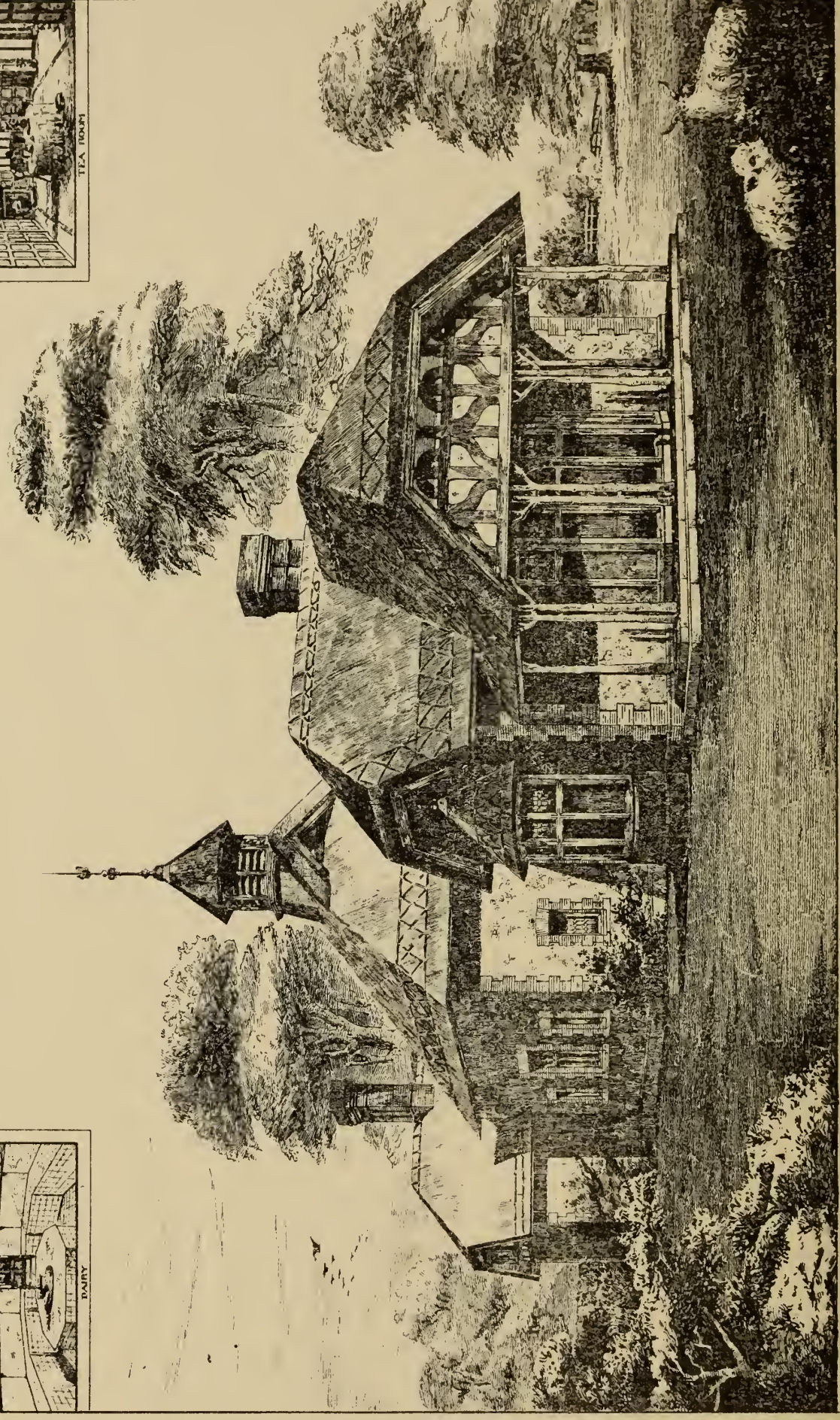
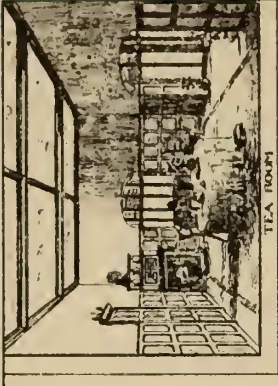
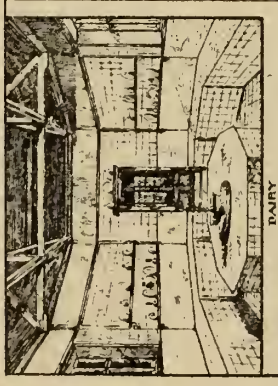


PLATE XXIII.

The Dairy and Tea-Room, Luton Hoo.

THIS ornamental dairy and tea-room has been lately erected at Luton Hoo, near Luton, Beds. The building has been specially designed and arranged as one of the show-places on this estate—one of the finest properties in the county. The structure was built of flint, with brick dressings, and covered with thatch in ornamental patterns. The dairy, with walls lined with tiles, mosaic floor, marble benches, and open roof, is octagon in plan. The tea-room is finished out with *old* oak panelling, with ornamental roof, chimney, fireplace, &c., in the olden style.

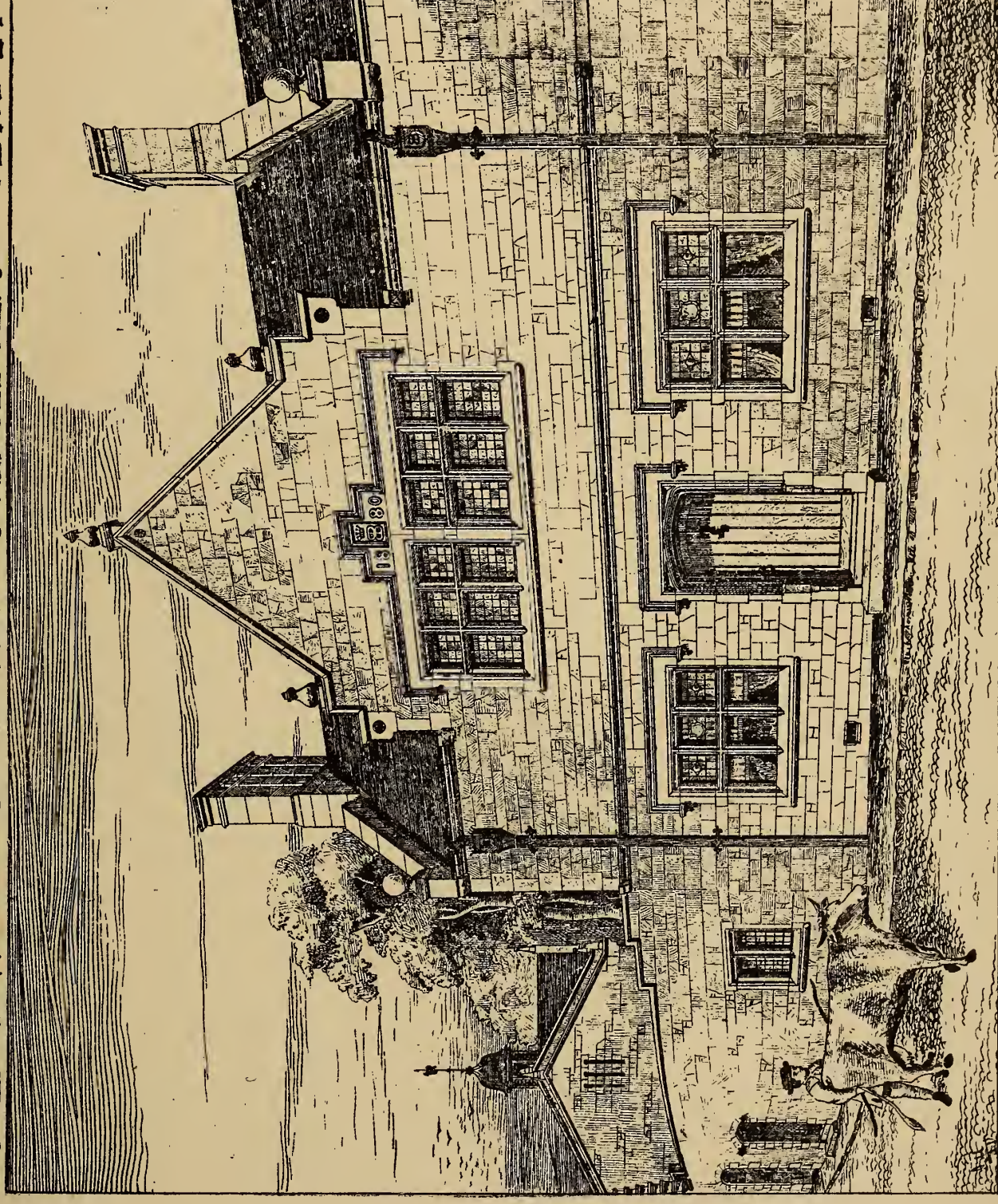
The cost of this work was about £2000.

PLATE XXIV.

The Butler's House, Cirencester.

ORIGINALLY a brew-house, this was converted into a residence for a butler, and is situated near to the park entrance, and looking on to the main road. There were a good many difficulties to contend with on account of the confined space and crooked form of the site, but these have been overcome. The building is a substantial one, and, like most houses in this part of the country, is constructed of stone. The walls are built rubble-work, and faced with random-coursed and dressed-stone ashlar; the door and window dressing, &c., are also of stonework to match. The roof is covered in with slates. The gable, with its ornaments in stone, forms a conspicuous feature in driving up towards the park gates, the roadway in front being open and spacious. The accommodation afforded is as follows: parlour, two bedrooms, kitchen, scullery, pantry, lobby, and water-closet, yard, coalhouse. It is contiguous to the mansion-house.

The cost of this cottage was about £600.



RESIDENCES COXWELL STREET CIRENCESTER • PLATE 25

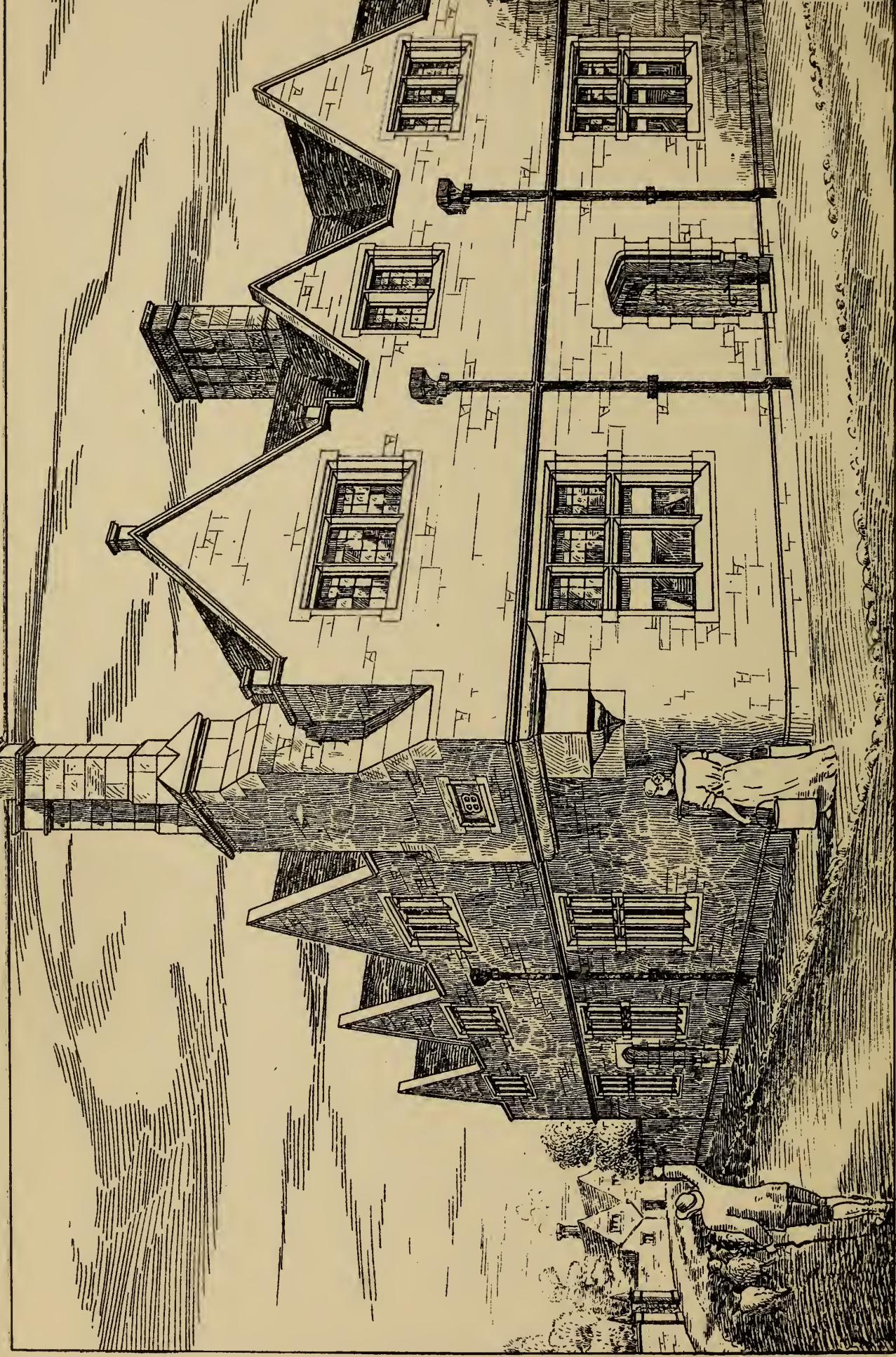


PLATE XXV.

Residences in Coxwell Street, Cirencester.

THESE houses form a block of three cottages, built on a corner site in Cirencester, and present to the view a sound and substantial appearance. Designed for mechanics' houses, they each contain a living-room, or kitchen and parlour, with pantry, coal-cellar, and water-closet on the ground-floor, and three bedrooms on the chamber-floor. A yard in the rear is attached to each house. The walls are built of rubble stonework, with clean-dressed facing, and all the moulded work of jambs and mullions, strings and labels, is also of local stone. The roofs are covered with slates. The exterior is broken up with old-fashioned gables and dormer and old forms of windows filled in with leaded lights; and of the corner a special feature is made by corbelling out in stonework and carrying up the chimney-stack on same with bold weatherings, and finished with stone angular shafts. The ground-floor rooms are designed with a 9 feet height of ceiling, and the bedrooms are over 10 feet high, and going partially into the roof.

The total cost of these houses was £1200.

PLATE XXVI.

Residences in Dyer Street, Cirencester.

THESE houses were recently built upon the site of some old buildings in Cirencester, and are each self-contained. As they were intended for letting purposes, the objects to be attained were the greatest amount of accommodation consistent with comfort. This has been accomplished, and has given satisfaction. The accommodation provided in each house is as follows: parlour, and four bedrooms, kitchen, pantry, clothes - cupboards, wash - house, fuel - house, and water-closet. And an open yard in the rear is also provided for each house respectively. The buildings are constructed of rubble stonework, and the roofs covered with large stone-slates, and stone-ridge; all the jambs, &c., of door and window openings being of dressed stonework.

Being built in a district where there are so many examples of quaint old stone domestic structures, the same style has been followed in designing the exterior. The high-pitched gables and forms of the windows and other portions are made to be in harmony with the surroundings, and partake of the same feeling to be found in these buildings just named, and as being so frequently met with in this country.

The total cost of these three houses was £1200.

RESIDENCES · DYER STREET · CIRENCESTER · PLATE 26



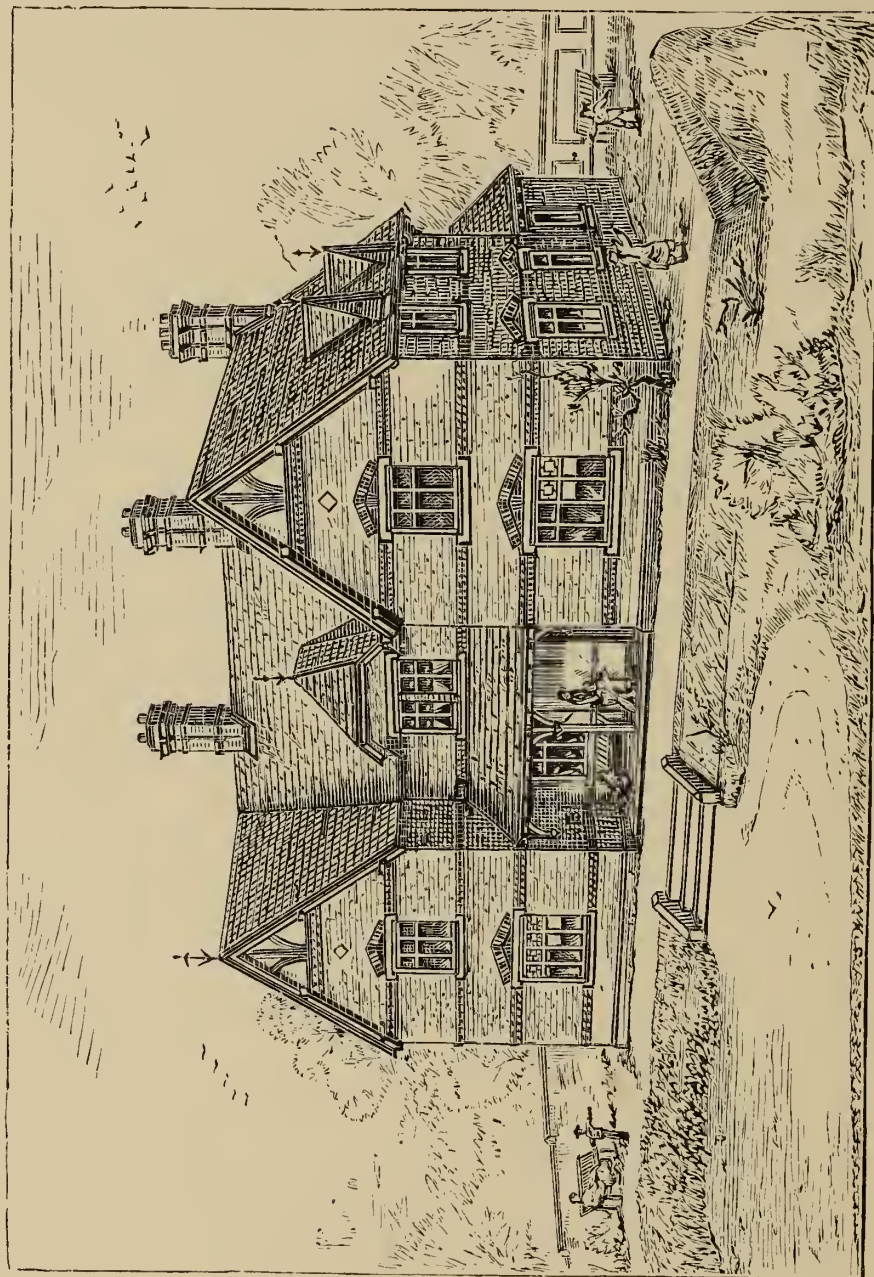


PLATE XXVII.

Convalescent Home for Children, Meanwood, near Leeds, Yorkshire.

THIS building was erected a few years ago at Meanwood, intended by the founder as a convalescent home for children. The institution has been working successfully for several years past, and is of much use to the general hospital at Leeds, forming a home for the sick children, who are drafted to this place for change of air. The building is erected of brick, and slated. The accommodation contains matron's room, children's day-room, dining-room, hall, and a complete equipment of kitchen offices, matron's bedroom, three dormitories, servants' bedrooms, bath-rooms, water-closets, and other conveniences.

The building cost £1600.

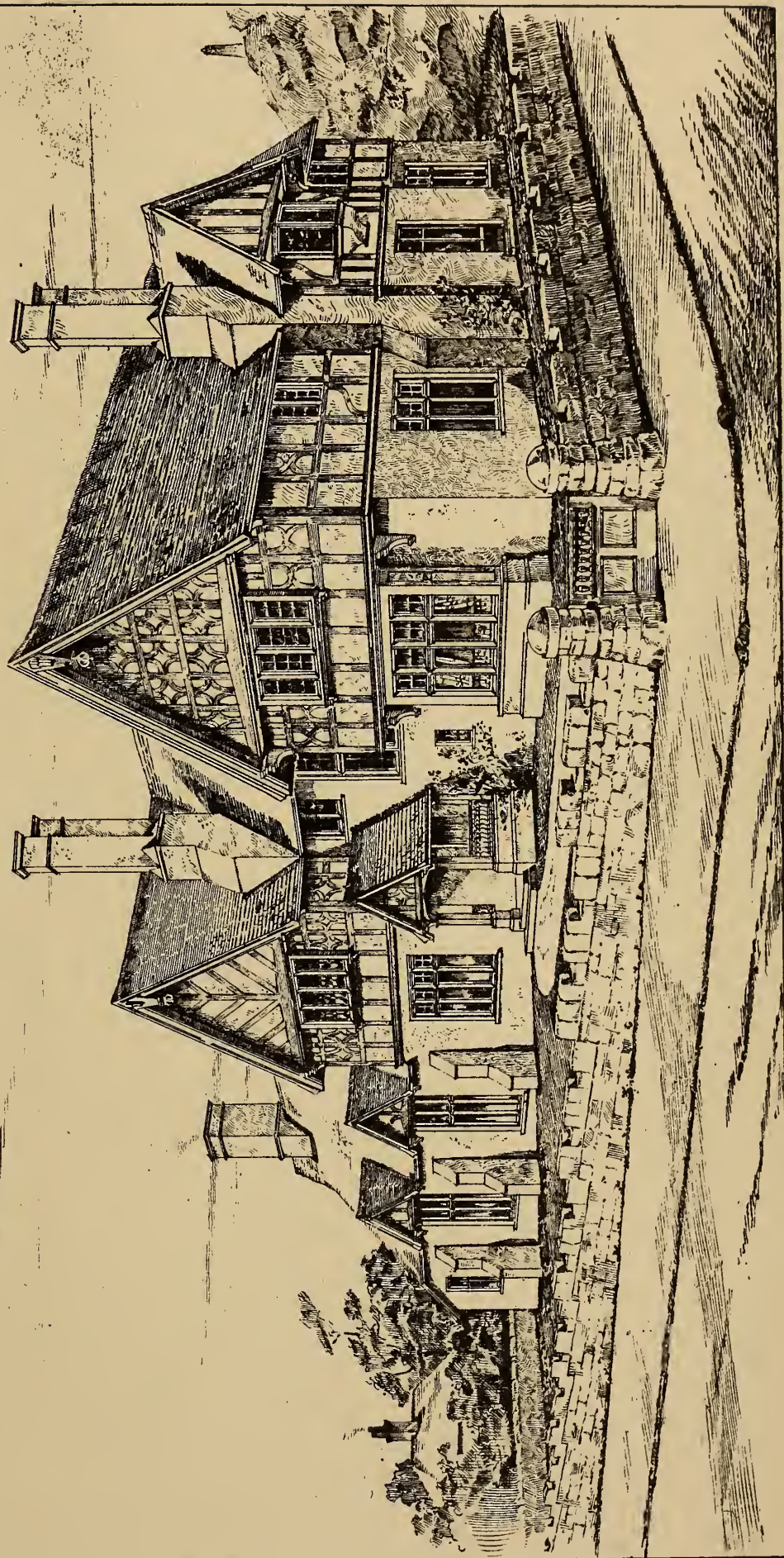
PLATE XXVIII.

Training Institution, Holyhead, Anglesea.

THROUGH the benevolence of a lady much interested in the successful training of women for the ordinary duties of domestic life, this building, of which Plate XXVIII. is a view, was instituted. It is situated on the outskirts of the town, and sheltered from the rough gales which frequently occur on this coast by the picturesque rocky background of the hill leading to Skinner's Monument. It is substantially erected of rubble-stone walling, and the roof is covered with slates, and every part of the building has been carefully and thoroughly thought out.

The objects in view have been provided for in the best and most satisfactory way, one large hall, 34 feet long by 21 feet wide, being provided for purposes of teaching and demonstration. This hall can, by means of a movable partition, be made into two separate rooms, one of which becomes a sewing-room and the other a cooking-school. When thrown again into one, it is used as a lecture-hall. Adjoining this there is room for the matron of the institute, and in the rear of these are the kitchen and offices provided for the daily requirements of the inmates. To the right of the entrance-hall are two rooms with sunny aspects, which, with the bedrooms over, are intended as a quiet retreat for convalescents. A laundry and wash-house are attached to the building, as training in these particular branches is carried on, as well as wood-carving and other useful and homely arts, calculated to raise the standard of intelligence among the people whom it is designed to reach. Dormitories and bedrooms are provided on the chamber-floor, as well as bath-room and other conveniences.

TRAINING INSTITUTION • HOLYHEAD • PLATE 28



The drainage and sanitary works connected with the building have been perfected in the most modern and approved manner. The exterior is finished with rough-cast, and the chamber-floor broken up with half timber-work in quaint forms, the whole nestling comfortably under the shadow of the rocks that rise in the rear.

The total cost of this institute was £2300.

PLATE XXIX.

Explanation of a simple System of Ventilation applied to the Improved Dwellings recently erected on The Most Noble the late MARQUESS OF AILESBUURY'S Estates, in Wiltshire, and for the Rev. A. H. SAUXAY BARWELL, M.A., in Sussex, and elsewhere.

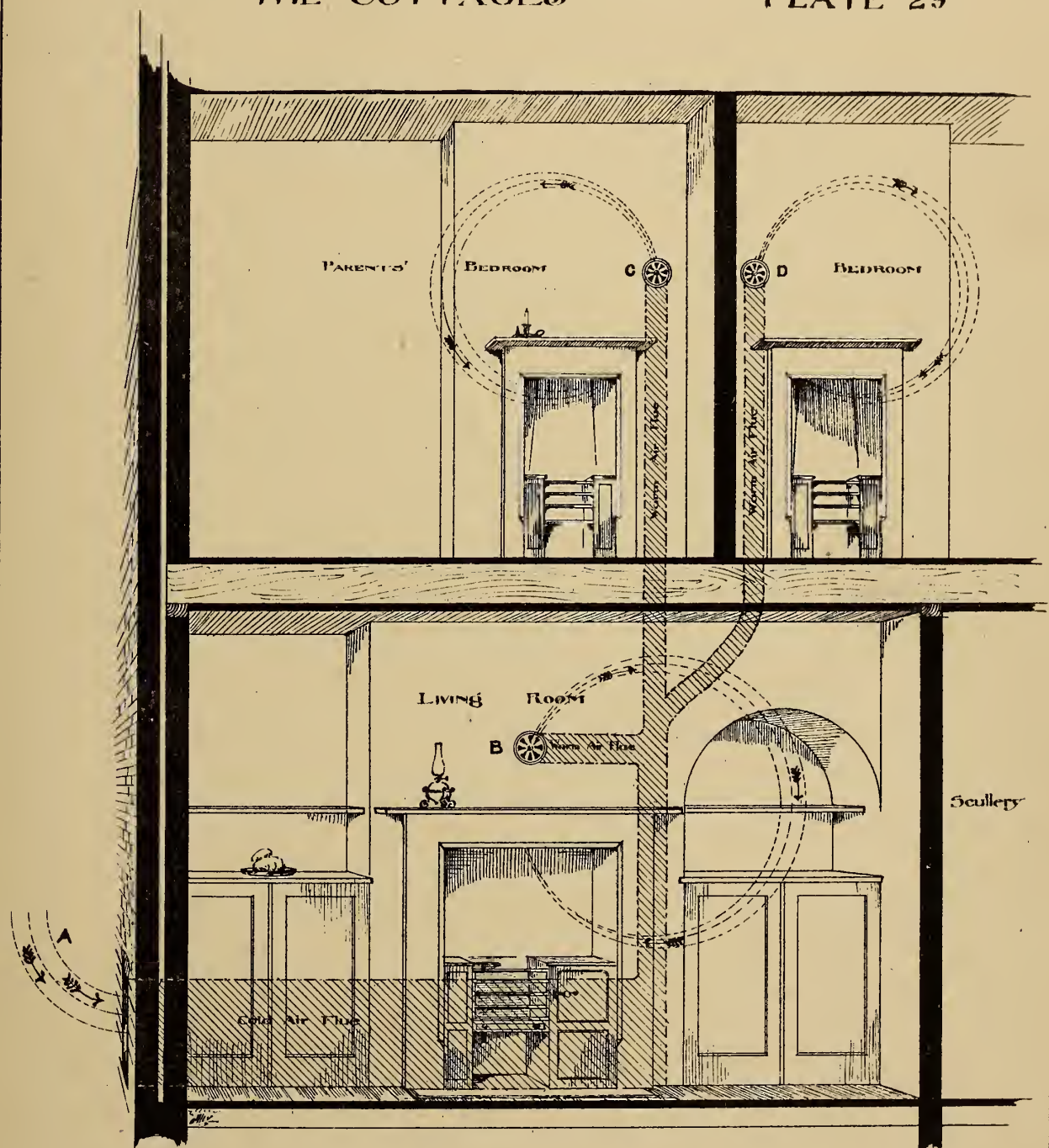
THE importance of ventilation in our dwellings will be readily admitted by all possessing any knowledge of the abodes of the poor in large and populous cities. Some of our new hospitals and institutions have been arranged upon scientific principles; it is, however, a fact that little attention is devoted to this important feature in modern domestic buildings.

Much of the poverty and disease prevalent amongst the poor is to some extent caused by the unhealthy state of their homes, the atmosphere being frequently poisoned and rendered most injurious to health by effluvias from defective sanitary arrangements, producing many contagious diseases arising from the want of thorough ventilation,—the want of a plentiful supply of pure and wholesome water,—the want of properly constructed and well-trapped drainage,—the want of a strict and thoroughly efficient sanitary supervision and house-to-house inspection,—the overcrowding of the dwellings, many of the localities being so densely built upon, so badly arranged and planned, that currents of fresh air cannot penetrate the courts and alleys of the thickly populated parts of large towns. In many parts of London, four, six, eight, and in some cases ten-roomed houses, may be found with families of from two to six occupants (children and adults) living in each room of the house, some of the rooms containing not more than 600 or 700 cubic feet of space in all, with confined staircases, and scarcely any ventilation whatever.

When making an inspection of the dwellings of the poor of Liver-

SKETCH SHEWING METHOD OF
WARMING AND VENTILATING
THE COTTAGES

PLATE 29



pool, many dilapidated fever-stricken localities were discovered, nearly all having dwellings wholly under the level of the street, where some of the occupants slept. A space of about 8 or 10 feet was all the distance between the back of the dwellings and the back of the tenements in the opposite street, and even this limited space was devoted to open privies and dung-pits, poisoning the air and producing a high rate of mortality.

With the knowledge we possess of the benefits derived from good ventilation, it is a matter of surprise that so little attention is bestowed on this subject in the construction of nearly all our domestic buildings of the present day, beyond the ordinary old-fashioned means of loose-fitting doors and windows and open fireplaces.

Upon referring to the diagram, it will be observed that the cold fresh air is admitted through a perforated cast-iron grating fixed in the external wall, close to the party-wall at A, and passes along the channel shown by dotted hatched lines, and marked cold-air flue, until it reaches the back of the living-room fireplaces, where, by means of firelump backs to these fireplaces, the cold fresh air becomes gradually heated, and passes thence up the warm-air flues shown by the perpendicular dotted hatched lines, one flue being constructed to communicate with the living-room; wrought-iron self-acting valves are fixed at a convenient height over the chimneypieces for the admission of the warm air to these living-rooms at pleasure, and after circulation passes up the chimney-flue. By this method an equal temperature is sustained capable of being increased or diminished, and the atmosphere is rendered pure and wholesome by a *constant* and *steady* admission of rarefied air. The same warm-air flues are carried up to the bedrooms over the living-rooms, and admitted into each in a similar manner, maintaining a steady change of atmosphere and passing up the chimney-flue. By this system the whole of the heat from the area at the back of the fireplaces, which are constructed back to back, is utilised, effecting a saving in the consumption of fuel, and dispensing with fires in the bedrooms. In addition to this system, and to assist the ventilation generally, moderate-sized frames, filled in with perforated zinc, are fixed over each of the bedroom doors, communicating with the staircase; and in the ceilings of the latter are fixed accesses to roof, perforated for the escape of the surplus foul air, from whence it passes through perforated slits in the external walls of the main gables of the house.

EVIDENCE GIVEN BY MR JOHN BIRCH BEFORE THE SELECT COMMITTEE OF THE HOUSE OF LORDS ON THE IMPROVEMENT OF LAND. THE MOST HONOURABLE THE MARQUESS OF SALISBURY, CHAIRMAN.

Session 1873.

MR JOHN BIRCH is called in, and examined as follows :—

2597. *Chairman.* I think you have been a good deal engaged in building cottages?—Yes.

2598. And in buildings of all kinds?—Yes. I have, however, erected a number of cottages under the Lands Improvement Company and others.

2599. The Lands Improvement Company was, I think, one that did not itself build?—Yes.

2600. When you say you have been building under them, you mean with money furnished by them?—Yes.

2601. You build under the landowner or his agents?—Yes.

2602. To what extent have you built under them?—I have built between forty and fifty cottages, where the outlay has been furnished by Lands Improvement Companies.

2603. Have you built any farm-buildings?—Yes, but not under the Inclosure Commissioners' inspection.

2604. Have you conducted any other works?—Yes.

2605. What is your experience of the working of the supervision of the Inclosure Commissioners under the Companies Acts?—I think it might be reduced. There is too much supervision. Three visits are made. First, the preliminary visit; then another visit when the buildings are in skeleton; and another when they are completed. I think perhaps two might suffice.

2606. Where would you put the two visits?—I should make one visit when the buildings were in skeleton, and another visit when completed.

2607. In fact, you would not permit the inspector to alter the plans?—Exactly so, if they were furnished in accordance with their instructions.

2608. You would allow the Inclosure Commissioners to lay down certain general rules; when those rules were complied with, you would not permit any further alterations at all events?—I think not.

2609. Do you think that the interference of the inspectors in altering plans is at all a source of dissatisfaction to agents or landowners?—I have found it

detrimental to the furtherance of the object. I think more buildings would be erected if less interference took place.

2610. Do you think that the interference has been unwise, or simply that people have disliked interference on general grounds?—Sometimes it happens the inspector does not quite understand building matters. They are generally better acquainted with agricultural matters than with buildings.

2611. You think that their interference is ignorant sometimes?—In some cases.

2612. Are they occasionally ignorant of the precise wants of the locality in which the buildings are to be placed?—Yes, and ignorant on building matters generally.

2613. Have you any complaint to make against the specifications that are issued by the Commissioners?—I think they might be framed a little more economically; not much. I think the timbers might be reduced a little, and other items of detail might very well be dispensed with. I have built cottages in different parts of the country, where gentlemen have not taken advantage of the medium of these companies. I reduced a few of the stringent clauses; the buildings are quite as sound, and have proved quite as satisfactory.

2614. The margin of profit in building cottages is so very small (perhaps it might even be put in another way) that such details became of very great importance?—A reduction in cottage building is made up of small items; if one wishes to take off £20 or £30 from the cost of a pair of cottages, he must operate on nearly every item throughout.

2615. What is the minimum cost at which a pair of cottages can, in your judgment, now be built, not in stone countries, of course, but in brick countries?—I should think that, under the Inclosure Commissioners, including architect's charges, a pair of cottages might be built at the present time at from £380 to £400.

2616. You do not think they could be built cheaper than that under the Commissioners, at all events?—I think not. At the present time I find building materials and labour fully 15 per cent more than they were last year.

2617. Do you think that any appreciable reduction could be made upon them by disregarding or modifying the instructions of the Commissioners?—A little.

2618. How much?—I should think from £15 to £20 a-pair—perhaps more.

2619. How many rooms in a cottage do you give for that amount?—Three bedrooms, one living-room, and one scullery.

2620. Any outhouses?—Yes; a coal- and wood-house, privy and piggery.

2621. And an oven?—An oven, a washing-copper, and drainage.

2622. A tank?—A tank, a well, a pantry, a linen-closet, shelving, and cupboards.

2623. Then they are cottages of a superior class?—Yes, they require no other outlay; it includes all the minutiae of detail. There are no fittings or fixtures to be provided afterwards; it is the total cost for completing the buildings at the outset.

2624. *Lord Hanmer*. You do not want a tank and a well too?—In some parts of the country where wells are not to be depended upon, a tank becomes very useful. Every roof is bound to catch a good deal of rain-water. I do not think it is very costly. It amounts to about £5 or £6, on an average, to each pair of cottages; under any circumstances one is compelled to take

the water from the roof somewhere, as it would be injurious to the foundation of the building.

2625. *Chairman*. Is it your experience that cottage-building is going on fast now?—I build a greater number of cottages for private individuals than I do where Land Improvement Companies furnish the money.

2626. Do you think you build more for them than you used to build a few years ago?—I have done so lately.

2627. There is considerable room for improvement in cottages, I suppose?—Yes.

2628. In the districts you have seen, are they very bad?—Yes; in 1868 I built a pair of cottages in Wiltshire on a model plan I have adopted in a good many parts of the country, with precisely the same kind of accommodation I have mentioned for less than £300, including my own commission and travelling expenses; they cost £297 a-pair. I accepted a builder's tender the other day for cottages in Surrey on the same plan, at £400 per pair, the money to be borrowed from the Lands Improvement Company.

2629. Is that from the increase of wages, or materials, or both?—Both.

2630. I think the Inclosure Commissioners never sanction the borrowing of the whole of the cost of the cottages, do they?—No.

2631. A portion must be paid for by the tenant for life?—Yes. £300 used to be the recognised sum per pair, but I believe now you can get about £375. In peculiar cases where there is very large carriage, and in an out-of-the-way part, one can induce them to give a little more, but they will not give the full amount that has been expended. In one case in Carmarthenshire the cottages cost £430 a-pair; I think in that case £375 was allowed. If you are prepared to prove the actual cost, and that there have been certain difficulties by way of labour, long carriage, and so forth, they are prepared to meet you beyond the usual sum of £300 per pair.

2632. *Lord Vernon*. I think you were a competitor, were you not, for the plans of cottages under the Society of Arts?—Yes.

2633. You took the prize?—I did.

2634. What were the terms of the competition?—The terms of the competition, to the best of my recollection, were that the cottages were to be in accordance with the Inclosure Commissioners' requirements, and not to cost more than £100 each cottage.

2635. The cottages that took the prize were never built for that sum?—No; £220 was the nearest that I could get a pair built for.

2636. When you speak of the price of cottages at £380 to £400 a-pair, at what do you put the thickness of the walls?—11 $\frac{1}{4}$ inches; two 4 $\frac{1}{2}$ -inch brick walls with a 2 $\frac{1}{4}$ -inch space between, making 11 $\frac{1}{4}$ inches as total thickness.

2637. You have built them with hollow walls to a considerable extent?—To a considerable extent, in fact in almost every case.

2638. And with success?—With success.

2639. What do you consider the advantage of building with hollow walls?—I think the rooms are kept cooler, the colouring of the walls does not require to be so frequently renewed; the internal thickness of the wall is much drier, and the building is more durable; if the walls are tied with iron ties (with the present price of iron, people are inclined to use as little as possible), due care ought to be taken to see that a proper number is put in the wall. Sometimes bricks are substituted for iron ties. In parts of the country where the bricks

are very porous, they ought not to be used. A porous brick conducts the damp, an iron tie does not : in some parts of the country where the bricks are very hard, I would, however, prefer bonding with an 11 $\frac{1}{4}$ -inch brick, rather than with an iron tie ; in my opinion the wall is much stronger.

2640. Do you consider that all the cottages you have built under the authority of the Inclosure Commissioners will last for twenty-five years, the term for which money is charged upon property?—I consider they will last a great deal longer.

2641. Without any very extensive repairs being required?—Yes, provided they are upheld ; that is to say, that every few years, at the usual time, the painting be renewed, and little matters of repairs done which should be attended to every year.

2642. Have you seen any of the first cottages that you built under these Acts?—Yes.

2643. Do you generally find that they are maintained?—Yes. I have been engaged on an estate in Shropshire for some years ; I have had an opportunity of inspecting the first lot of cottages that were built, and noticed that they were upheld.

2644. You have mentioned that you think the inspection under the Inclosure Commissioners might be reduced?—I think the first inspection, excepting in the matter of a large outlay, might very well be dispensed with. A gentleman contemplates building a pair of cottages, we will say in Wales ; an inspector comes some distance to see the site before proceedings can be sanctioned. I consider this an unnecessary addition to the cost.

2645. Under how many of the Inclosure Commissioners' Inspectors have you worked?—I think I have worked under four or five.

2646. You have found some of them very efficient, and others not so, I suppose?—Yes.

2647. When you speak of inspection being detrimental to the objects for which these Acts of Parliament were passed, could you explain that a little further ; in what way have you found it detrimental?—The borrowers find the preliminary and total expenses come high.

2648. Have you heard them say that they would not borrow any more?—I know one case where the gentleman will not borrow any more ; he did not take up the full amount he proposed to borrow.

2649. On account of the expenses of inspection?—Yes, the expenses altogether.

2650. *Lord Hanmer*. I understood you were a builder only, or an architect?—I am an architect, not a builder.

2651. You think at present the cost of building cottages, more or less, is so considerably increased that it is not a profitable transaction to build cottages simply?—I do not think it ever was a profitable transaction.

2652. If anybody should say that by dint of adding a little land, and two or three little arrangements with which any person connected with landed property is very well acquainted, cottages might be made a very profitable transaction indeed ; are you prepared to contradict that?—I cannot contradict it in exceptional cases.

2653. I mean speaking generally. Supposing a landowner likes to put a little land to a cottage, and, as I suggested to a witness the other day, to plant it round with fruit-trees, my experience is that you cannot do a better thing,

or invest money at a greater profit than in that way ; are you prepared to contradict that?—I cannot contradict it, because the land given with the cottage would help to meet the rent ; you would be able to charge a greater rent by adding a few acres. The great complaint is that they only get about one-eighth of an acre or one-third of an acre, or something like that ; it is hardly sufficient. In some cases they are not allowed to keep a pig.

2654. Supposing you give them three or four acres?—In that case it would pay better ; care, however, would require to be taken not to reduce the farmers' opportunities of obtaining labour.

2655. The object of my question was to express an opinion that building cottages, so far from being an unprofitable transaction, is about the very best thing you can do if you supplement the cottage with a little quantity of land?—Yes. There are various points to be looked at with regard to the cost of cottages : I consider you ought to look at the superior class of tenants that you command, and not in a strictly financial point ; you get a better class of servant comfortably housed ; a comfortable and convenient cottage forms a great inducement to a farm-labourer.

2656. Take the people as they are in the parish you live in, rough and smooth, for better and worse, first one and then another—I believe if you add land in that manner to cottages, it matters very little whether the cottage cost £50 more or less, where the additional cost, owing to the rise in the price of labour and materials, is within reasonable bounds, I believe it may be a very profitable transaction ; do you know anything to the contrary?—No, I do not know anything to the contrary. My experience is that it is not very profitable ; what it might be made is another matter.

2657. *Lord Egerton*. You said you would dispense with the first inspection ; do not you think it of some importance that the inspector who comes down should settle whether the site is good or bad, damp or high, or whether there is provision for water and things of that kind, that they may form a material element in the building of a cottage?—I think the gentleman and his agent, seeing that it would be to their interest, would be perfectly competent to choose a proper site, and to do all the preliminary business required.

2658. You were talking of the various cottages you had built ; what is the size of the principal living-room?—14 feet by 12 feet, and 8 feet high ; scullery 12 feet by 8 feet ; one bedroom 14 feet by 9 feet, a second bedroom 11 feet by 8 feet, and a third bedroom 9 feet by 8 feet.

2659. Are the bricks pressed bricks or the common brick?—The common brick.

2660. What would be the average price of them?—They have been as low as 15s. a thousand, and as high as 45s. ; I should say from 28s. to 30s. per thousand.

2661. That would make a material difference in the estimate for your cottages, would it not?—Yes ; in the case of these cottages at £400, the bricks are about 45s. a thousand delivered on the site.

2662. What precautions are taken as to the mixing of the mortar? You say they would last a long time ; does that depend on whether the mortar is properly mixed?—It depends a great deal on the kind of lime that is used, and the way it is prepared.

2663. Have you had any experience as to the difference in cost of concrete and brick cottages?—No, I have never built any concrete cottages.

2664. *Marquess of Bath*. Did I understand you to say that the requisition of the Commissioners had militated against the operations of the Act?—Yes.

2665. Have you ever known any case where, in consequence of their overruling the specifications that have been sent to them, the cottages were not built?—Yes.

2666. In one case, or in many cases?—In one case, to my knowledge: I have, however, reasons for thinking there were more cases than one.

2667. And in that case what was the difference of opinion between the landowner and the Commissioners; what did it turn upon?—In that case the particulars that he furnished were not in accordance with their requirements; he amended his plans, but did not make them complete, and became tired of the preliminary trouble.

2668. What was the difference between them; what portion of their requirements was it that the landowner had not complied with?—The kind of buildings; the sizes and the details of construction.

2669. Did they require larger buildings than he proposed?—Larger buildings, and more substantially erected.

2670. Were they farm-buildings or cottages?—Cottages.

2671. They required more cubic space?—Yes.

2672. And more substantial erections?—Yes. In those cases they applied to me. I succeeded in getting the cottages built through one of the Lands Improvement Companies, without using the first plans—the plans that were perhaps once or twice sent for approval.

2673. Without using the Commissioners' plans?—Without using their own plans that they sent to the Commissioners in the first instance.

2674. Using only the Commissioners' plans?—Using my plans.

2675. As coming in between the Commissioners and landowner?—Precisely.

2676. You put on one side the Commissioners' plan, and on the other side the landowner's plan, and produced your own?—Exactly.

2677. And the Commissioners sanctioned that?—Yes; because, in the first instance, these plans were submitted to the Commissioners as trial plans, and approved of; they were prepared in accordance with their requirements, reducing the cost to a minimum.

2678. Do you think the effect of the Commissioners' requirements is generally to increase or diminish the expense?—I should think it tends to diminish the amount of business done.

2679. But does it diminish the cost of putting up cottages?—It adds to it a little; not much.

2680. Do you find they object ever to what we may call unnecessary expense, such as ornaments in building, or anything of that sort?—No, they will not object to ornamentation, but they will not allow for it.

2681. Is that one of the points upon which they have differences with the landowners?—No, I think not. The Minute of the Commissioners is framed to embrace farm-buildings and cottages generally; there are no special particulars relating to the sizes of timbers for cottages; they apply more to roofs of farm-buildings and suchlike.

2682. Larger than requisite?—Yes; a portion of the instructions might be drawn out for cottages.

2683. It is not so much from the requirements of the Commissioners, as

from people not understanding their requirements, that these extra expenses arise?—Quite so. In one part it is mentioned the ceilings should be 7 feet 6 inches; now some might understand it to mean 7 feet 6 inches to the height of the roof-plate: you can, however, get cottages passed by them with that height at 5 feet—that is to say, the ceilings would measure 7 feet 6 inches at the highest part, and 5 feet at the eave or lowest part. In that case you can build with tiled roofs and put the ceiling up in the roof more so than you can with a slated roof, where you would have to carry up your walls and have a flatter roof, otherwise your rooms would become so hot in summer weather, and cold in winter.

2684. In short, it is more from people not understanding their requirements than from their requirements being too severe?—To a certain extent. I found no difficulty in dealing with them; I did not take their minute as a guide altogether; I know what is required to meet approval.

2685. *Lord Hanmer*. Why should you have a flatter roof with slates than with tiles?—If you had a high-pitched roof with slates, you would lose a great deal of the space in the roof, unless you carried your ceiling up into the roof, say, 3 feet or so; not a very desirable plan, as the rooms are generally much too hot in summer and very cold in winter, unless the slates are laid on boarding and felt.

2686. You never would make the ceiling level with the wall-plate, would you?—With a slated roof at a flat pitch I would, for the reasons given.

2687. *Lord Meldrum*. When you estimate that a pair of cottages cost £390 and £400, do you allude to cottages built purely in an agricultural district, or near a town? Would not a pair of cottages near a town, where there were plenty of contractors to contract for them, be built at a much cheaper rate than that?—I am alluding to exceptional cases, where a gentleman wishes to complete a pair of cottages, say, twenty or thirty miles from a large town, and perhaps seven or eight miles from a railway; there would be less carriage near a town, but, on the other hand, the labour would be more costly.

2688. It is rather unfair, then, to estimate the average cost of a pair of cottages at £380 to £400?—That would be about the cost at the present day, including architect's commission and expenses. The average cost from 1856 to 1872 for twenty-two pairs of cottages, built under my supervision and the Inclosure Commissioners' inspection, was £340 per pair, including my commission and expenses.

2689. Does that include fencing the garden round the cottage?—Fencing and leaving them all fit for the inhabitants to go into without any further expense.

2690. *Lord Colchester*. Are you in the habit of building cottages in cases where money is borrowed under the sanction of the Inclosure Commissioners?—Yes.

2691. You were speaking just now about their requirements in that respect?—Yes.

2692. I understand the rules have been somewhat modified of late years?—Yes.

2693. What has been the nature of those modifications?—They are prepared to sanction more money, and are not so stringent in regard to matters of detail.

2694. They sanction a larger expense in proportion to the rental of the estate?—Yes; they are prepared to meet the difficulty. The price of building materials and labour having so much increased, they find that the ordinary sum of £300, which used to be sufficient to build a pair of cottages, is not enough now.

2695. They do not require in every case the same state of accommodation?—No; in some cases two bedrooms.

2696. Is that founded on any experience they have had, that a larger accommodation is not required, or that it is put to a different use to that which is intended?—I cannot say. On a large estate sometimes there are old people; it is inconvenient, indeed it is an unnecessary expense, to put them in a cottage with three bedrooms, when a cottage with one or two bedrooms would be sufficient. On almost every estate there are old people who have no family living with them; it is convenient and economical when a gentleman is building a block of two cottages, to put a smaller cottage in the centre of the two.

2697. That did not occur to the Commissioners until within the last few years?—I do not know; it occurred to me a year or two ago: I built two blocks of them in Shropshire, and they answer very well.

2698. In what counties have you chiefly been engaged in?—In Essex, Herefordshire, Wilts, Derbyshire, Carmarthenshire, Shropshire, Sussex, and Cheshire.

2699. Has your attention been much called to the general condition of the cottages in those counties?—I have noticed a good many dilapidated cottages.

2700. On estates with which you were not actually concerned?—Yes.

2701. Do you attribute any bad condition of cottages to difficulties created by the law, in the way of raising money to repair them?—In some cases it might be tardiness on the part of the owners, and in others I think they do not wish to incur the expense.

2702. Do you think any relaxation of the time within which the repayment is necessary, will tend to improve the condition of cottages throughout the country?—It might do so. I have met with one or two clients who have preferred to go to an office, because the annual rentcharge would be spread over thirty-one years at a less rate of interest than if they went to another office where it is spread over twenty-one or twenty-two years at a higher rate of interest, requiring a larger annual payment to be made in order to redeem the principal or sum borrowed.

2703. I suppose it is not your opinion that cottage-building can often be made directly remunerative—in fact, that it is rather a sacrifice for the general good than a source of profit?—In certain circumstances it may be made remunerative. In Essex I built about £8000 worth of cottages last year, for the mechanics of a large manufacturer; in this case interest on the outlay is not looked for so much as making their workpeople's homes thoroughly healthy and comfortable; they accommodate a superior class of tenants, who become more steady and attached to their employers when properly housed.

2704. That would be a different case from the ordinary agricultural case?—Yes; but the principle would be the same.

2705. Were the cottages you noticed in a bad state generally on large estates, or on a small piece of land where they had been run up for the purpose of letting?—More frequently on large estates.

2706. On large estates as compared with small ones, or as compared with cottages not belonging to any estate?—On large estates.

2707. You think they are in a worse condition?—I think more instances might be found in large estates than in small ones.

2708. Do you attribute that to any particular cause?—The difficulty of taking up a large loan and carrying it out at once, if possible. In some cases a large loan expended on improvements is spread over a number of years, and becomes an expensive operation.

2709. You mean a larger outlay is required for a large estate?—Yes, if the property has been very much neglected—too frequently the case.

2710. You are aware that a contrary opinion has been expressed by a good many people?—Yes, I have advised to do so much a-year as might be convenient, and in that way to work the property gradually into its former condition. Of course you cannot expect to get as much work done for £1000 as you can for £10,000, I mean in point of cheapness. If one could undertake £20,000 worth of work, it could be done a great deal cheaper than £2000 worth a-year spread over ten years.

2711. *Lord Ettrick*. In building cottages with hollow walls, what is the complete thickness of the wall?—11 $\frac{1}{4}$ inches; two thicknesses of brick, with a space of 2 $\frac{1}{4}$ inches between.

2712. When you build a solid single wall, do you generally build a 9-inch wall?—An 11 $\frac{1}{4}$ -inch wall; I do not like to build a 9-inch wall, unless it is in a neighbourhood where it is not exposed.

2713. Having the three systems of the double wall of 11 $\frac{1}{4}$ inches, the single wall of 9 inches, and the single wall of 14 inches, which do you think the most durable of the three?—The 14-inch wall and the hollow wall are about equal in durability; if any difference, perhaps the 14-inch wall would be strongest.

2714. In case such a cottage is built with a 14-inch solid wall or a hollow wall of 11 $\frac{1}{4}$ inches roofed with foreign timber substantially complete and properly maintained, how long do you think it may be available as a wholesome habitation?—I should think such a structure would last fifty years. I have met with cases in Sussex, and in other parts, where they have been in existence one hundred years.

2715. Not more than 14 inches thick?—Not more than 14 inches thick.

2716. If you were to build by your own judgment the best description of permanent cottage for the habitation of labourers, what thickness would you give a wall?—I should make the walls hollow, 11 $\frac{1}{4}$ inches.

2717. *Lord Stanley of Alderley*. For how many years have you been engaged in cottage-building?—Cottage-building has formed a part of my practice upwards of eight years.

2718. During that time how many have you built?—One hundred and fifty.

2719. How many of those were under the Commissioners?—Between forty and fifty.

2720. Has your business, and that of others engaged in cottage-building, fluctuated much during that time?—A good deal. I have built more cottages lately than I did some years back; these have been more where the buildings have not been under the Commissioners.

2721. To what do you attribute the increase?—To the amount of attention that has been directed to this subject of late years.

2722. Can you suggest any means of still further increasing the improvement?—No, I think not, unless the Commissioners would be a little more relax as to requirements, and tenant-farmers contribute more liberally towards building new cottages, instead of looking at it in a strictly pecuniary spirit.

2723. Have you found that one good cottage leavens a district, and produces others?—Yes; in some cases I have found the example followed.

2724. You mentioned a pair of cottages which you are now building in Surrey for £400; is that the whole of the actual cost of building, and the architect's commission?—No; the architect's commission, in addition, would make the pair of cottages come to about £425.

2725. Is that including the whole of the cost of borrowing the money and the inspection?—No; the preliminary expenses of the company, including the inspector's charges, would add from $6\frac{1}{2}$ to 7 per cent to the £400, the loan or sum proposed to be borrowed.

2726. The annual charge will be 7 per cent; but then there is a fee for entering into the business, is there not?—Yes; I think the company's commission for providing the money forms 5 per cent of the preliminary charges; these charges are added to the sum proposed to be borrowed, and the whole is redeemed by an annual rentcharge, varying in percentage in proportion to the extent of the loan.

2727. For how much less would that pair of cottages be made if it had been made with the owner's own money instead of borrowed money, the architect's commission being the same in each case?—About £30 less, I think.

2728. It should be more than that, because you stated £20 less for not being made on such an extravagant footing?—Taking that saving into consideration, it would amount to about £50 less.

2729. At present it is £400, and it would be £350?—Yes; there is, however, no rule. In some parts of the country some builders are satisfied with less profits than in other parts. I mentioned an instance in Surrey of £400. I had a case soon afterwards, where a builder in Hampshire undertook the very same amount of work, including a little more labour, for £320 a-pair.

2730. *Lord Vernon*. Do you think it is possible, after the lapse of a few months, if you were to inspect a building after it was finished, to say whether the building has been substantially executed with thoroughly good materials and thoroughly good mortar; whether the wood is green or not?—I do not think it is possible for a man to certify touching the substantial construction of the building, unless he sees it in skeleton.

2731. Therefore that would prove that the oftener you could inspect the work the greater the guarantee would be that the work was well done?—Yes. In a case where only one or two pair of cottages are built, if a gentleman has a shrewd agent, or clerk of works, or a man acquainted with bricks, mortar, and sand, it is unnecessary, I think, that an inspector should come from London, or undertake a long journey, for that particular purpose; it adds £5 or £6 to the expense, and is unnecessary; I think he ought, however, to see the building before it is plastered.

2732. Do you think, as far as you have seen, agents are always shrewd and careful?—I have seen different kinds of agents; agents who could not

spend the money too fast in erecting farm-buildings much in excess of the scientific knowledge of the tenants, and others too neglectful, allowing the buildings to go to decay for want of attention.

2733. That would be a great damage to the inheritance?—I think so, because farm-buildings cost so much, and a much greater outlay is required when an estate has been neglected for a number of years, and all the buildings suffered to decay.

2734. When a building is finished you cannot tell whether the joists have been properly laid, can you?—You cannot tell very well that they have been placed at the proper distance apart unless you measure the distance apart of the nails in the floor-boards: you may ascertain the thickness of the floor; but with regard to the quality of the timber, you cannot test that so well, unless you have a part of the floor laid open.

2735. *Chairman*. The inspection should take place before plastering?—Yes.

2736. If it takes place then, there is no difficulty in ascertaining whether the works have been good or not?—No difficulty; he can see the class of timber used, and can measure the sizes of the various timbers.

2737. *Lord Vernon*. You can tell whether the joists have been well laid?—Yes.

2738. *Chairman*. In fact, the inspection during skeleton is the important inspection?—It is the most important inspection.

2739. The subsequent inspection, after it is complete, is not of so much importance?—The subsequent inspection would be important with regard to observing any settlements that might have taken place in the building; he would be better able to detect them then; he would also observe that all the details connected with the plans have been put in, such as coppers, ovens, sinks, plate-racks, towel-rollers, pumps, &c.

2740. *Lord Vernon*. Can you tell when a building is finished whether the mortar has been well mixed or not?—Yes, by it having set hard. You can pick a piece off the wall, and put it in your hand and crumble it down, you will see whether it has properly set or not. It may be a sort of bad mortar that will crumble away very easily; this would arise from several causes, such as bad sort of lime, want of proper tempering, insufficiency of grit in the sand, perhaps not properly mixed, and so forth.

2741. You could tell absolutely whether it has been thoroughly mixed?—Yes, you can tell very well.

2742. *Lord Ettrick*. When you say that a double wall of $11\frac{1}{4}$ inches is as permanent as a solid wall, do you proceed upon any experience as to what is the age of the oldest double hollow walls in the country at the present time?—The oldest I have built is something like seven or eight years old. The hollow wall is of a recent date; there is of course more solidity in a $1\frac{1}{2}$ -brick wall.

2743. In stating your opinion that the hollow wall of $11\frac{1}{4}$ inches is as permanent as a solid wall of 14 inches, that opinion is in some degree of a speculative character?—It is only my opinion; it is not based upon experience. My opinion would be the same with regard to concrete buildings; I should be sorry to advocate concrete buildings, because I have no precedent to go by. I cannot go and see a concrete cottage that has been up fifty years, nor can I go and see a hollow wall that has been up fifty years; but I believe

a hollow wall is nearly as strong as a 14-inch wall, provided it be constructed as I have endeavoured to describe, and the floor-joists and roof-timbers made to rest on these hollow walls.

2744. The hollow wall is drier?—Drier.

2745. Supposing the solid wall of 14 inches to be lathed and plastered within, is it then as dry as a hollow wall?—No, in some cases it is not. In some parts of Hampshire I have battened the walls, keeping the lathing and plastering clear of the wall, but found this insufficient to keep out the wet, where a hollow wall has done so. In all cases of constructing hollow walls, I think it is very necessary to put communications between the exterior face of the wall and the interior cavity to let out the wet. Condensation will accumulate, and may be observed by a dampness near the floors or skirting-boards on the ground-floor.

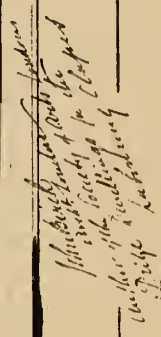
PLATES XXX., XXXI., & XXXII.

Dwellings designed for the accommodation of the Poor of Liverpool.

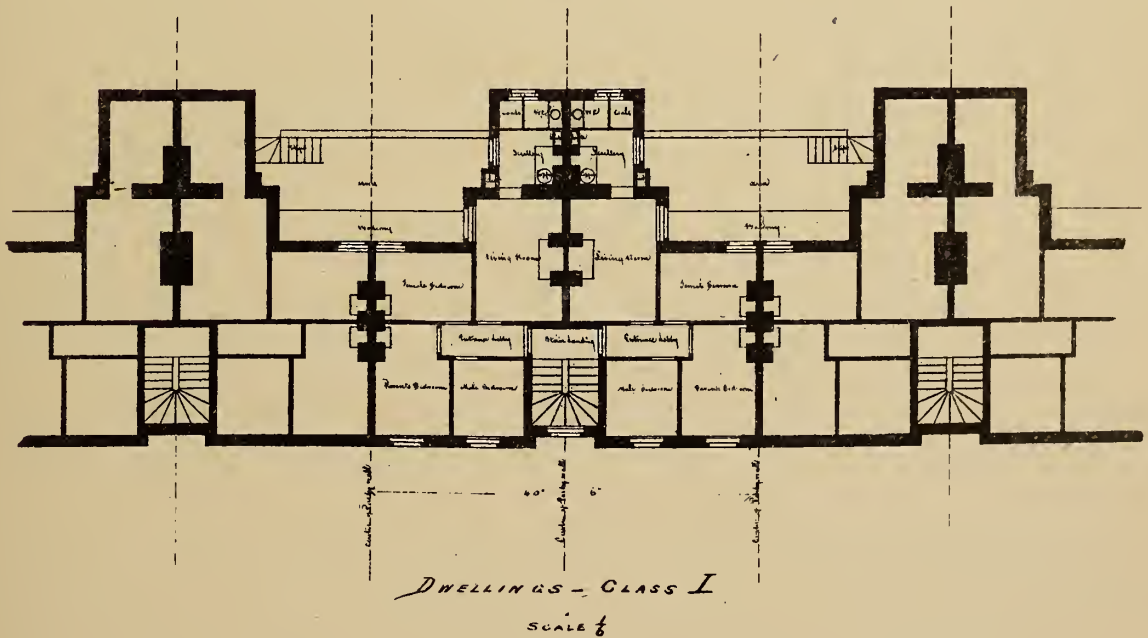
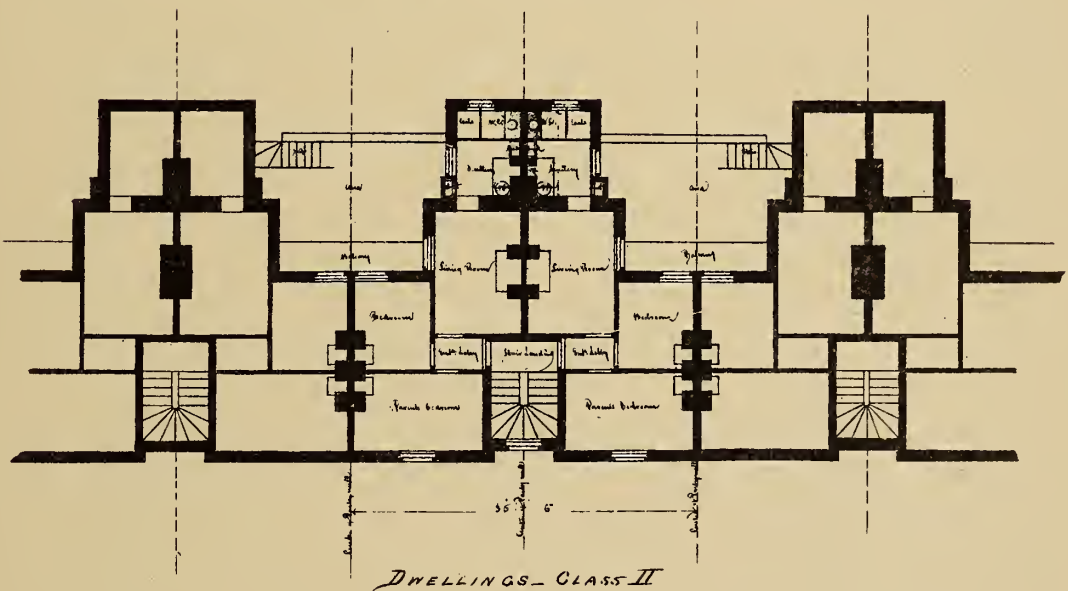
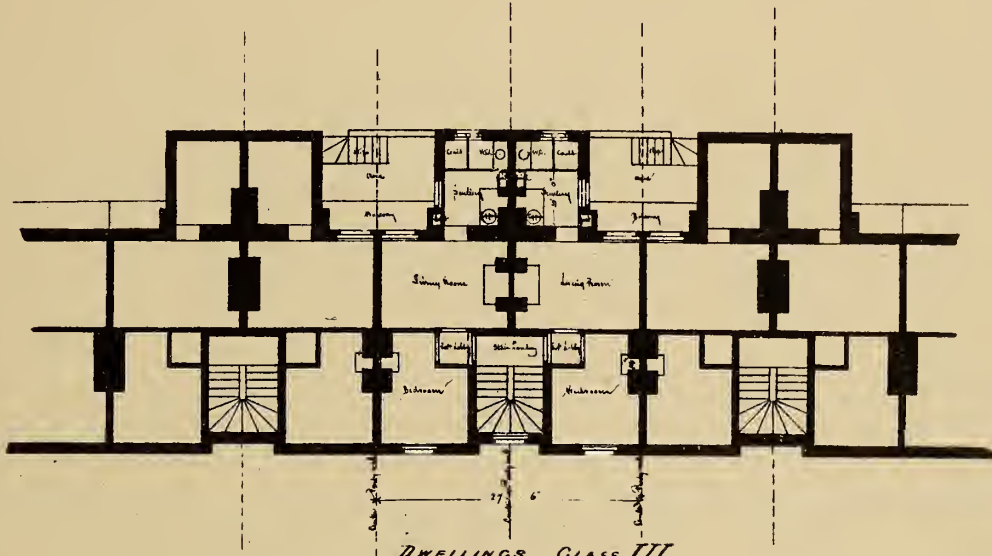
THE question of providing healthy and convenient dwellings for the poor in large towns as well as in the country, at rents equal to their means, has not received that attention the importance of the question deserves. Many of the dwellings in large towns being demolished from time to time to make room for public works and other improvements, render it necessary that the poor should be provided with additional accommodation, and such ought not to be left to unscrupulous enterprise, but should be under the jurisdiction of some responsible authority, to ensure these buildings being constructed to embrace every improvement of the age. Many dilapidated dwellings, in dangerous localities, ought to be swept away instead of being continually patched and repaired, or suffered to continue in their wretched state—hotbeds of disease, poverty, and vice, a disgrace to the parishes in which they are situated.

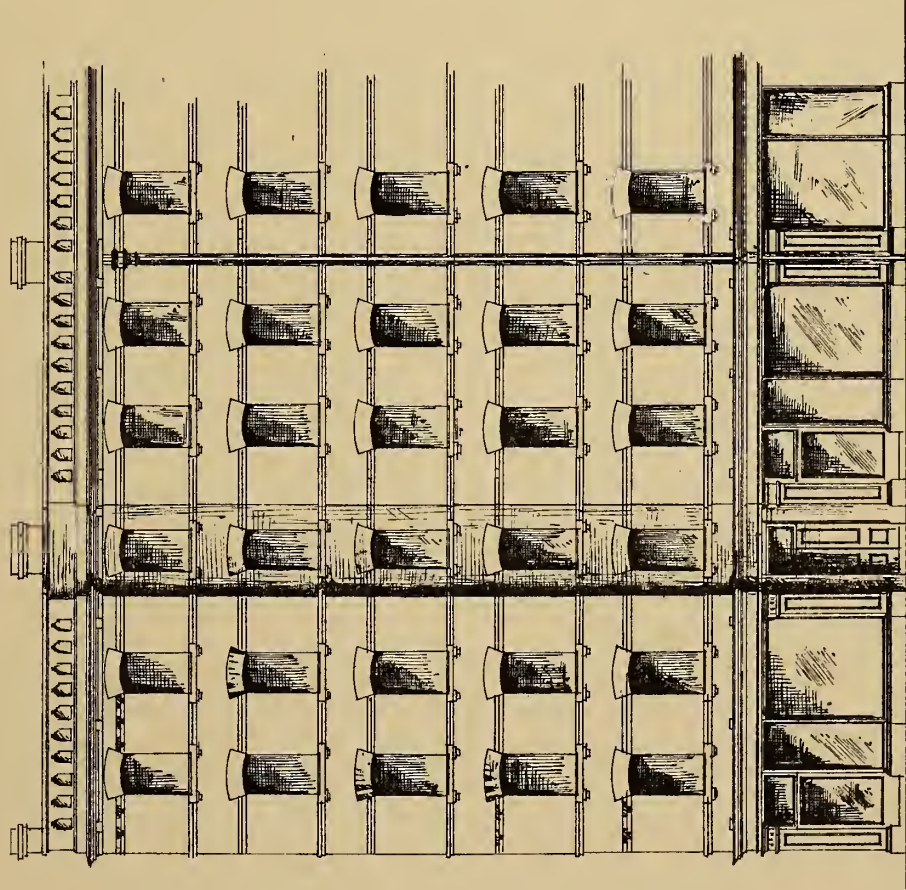
These plans, which were prepared for the accommodation of the poor of Liverpool, although not adopted, proved upon examination by the borough engineer to be the most economical from upwards of seventy designs submitted in competition.

The buildings were intended to be six storeys high, without any basement; they provided for 168 distinct dwellings, divided into blocks of three classes. In class 1 each dwelling provided for a living-room and three bedrooms. In class 2 a living-room and two bedrooms. In class 3 a living-room and one bedroom, with scullery, &c., to each. The cost of class 1 being at the rate of £179, 16s.; class 2, £148, 7s.; class 3, £98, 18s. per dwelling, or at the rate of £49, 9s. per room. The rents were rated as follows: class 1 at 6s. 6d., class 2 at 4s. 10d., class 3 at 3s. 3d. per week; the average rent per room being 1s. 7½d. per week,

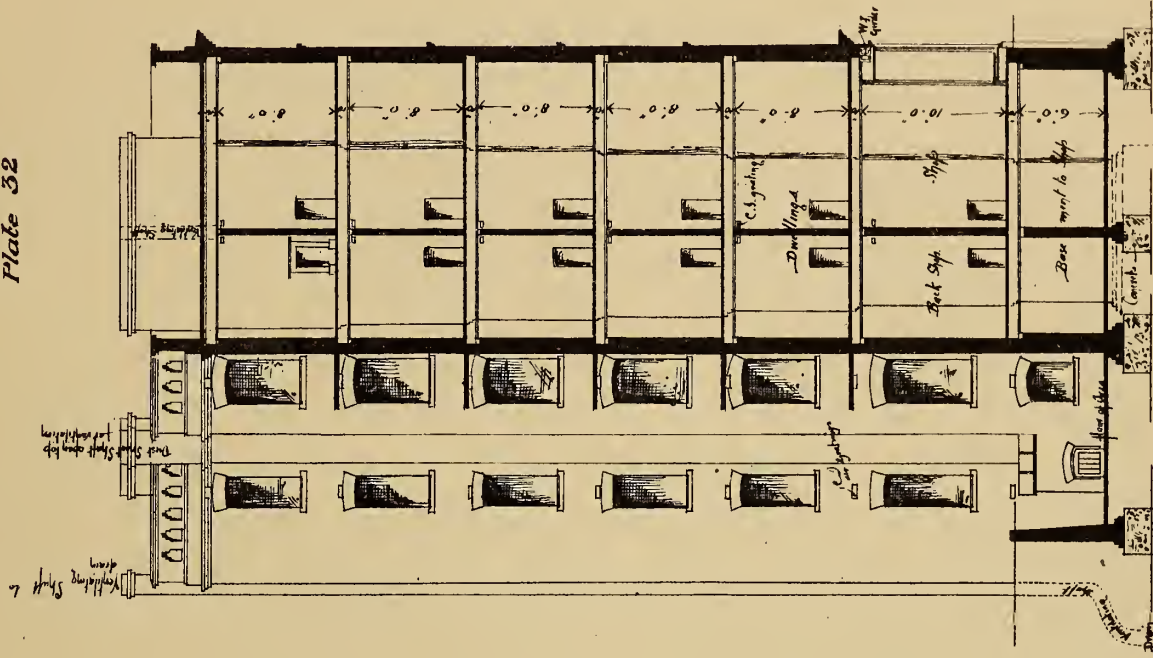


J Akerman, Photo lith. London.





Elevation of Part of 1 Class
Shops & Dwellings



Section A.B.

showing a net return of $6\frac{7}{8}$ per cent. Convenient baths, wash-houses, and laundry buildings were arranged in the rear of the dwellings, the ground-floors were intended to be occupied as shops, and the roofs of the buildings were designed for the purposes of drying or airing yards. In these dwellings it was endeavoured to embrace all the improvements of the dwellings in London of a similar class, without their defects, and at a considerable less cost.

APPENDED IS A COPY OF THE BOROUGH ENGINEER'S ANALYSIS OF TWELVE OF THE DESIGNS, SELECTED FROM UPWARDS OF SEVENTY DESIGNS SUBMITTED.

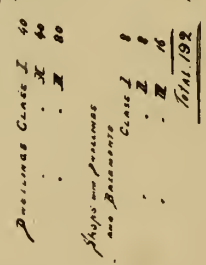
| No. of Design. | Name or Motto. | Established Cost. | Gross Rental. | Net Rental. | Interest per cent. |
|----------------|---------------------|-------------------|---------------|-------------|--------------------|
| | | £ | £ s. | £ s. | £ s. d. |
| 64 | John Birch . . | 23,736 | 2028 16 | 1,623 1 | 6 17 6 |
| 52 | Redman & Hesketh . | 17,797 | 1289 12 | 1,031 14 | 5 16 0 |
| 59 | W. & R. Duckworth | 17,292 | 1146 12 | 917 6 | 5 6 0 |
| 47 | John Reeve . . | 12,935 | 803 0 | 642 8 | 5 0 0 |
| 38 | Pro Bono Publico . | 16,778 | 1019 4 | 815 7 | 4 17 2 |
| 56 | J. B. . . . | 18,420 | 1076 8 | 861 3 | 4 13 6 |
| 41C | G. E. Grayson . . | 13,769 | 800 16 | 640 13 | 4 13 0 |
| 32 | W. G. Habershon . | 22,984 | 1248 0 | 998 8 | 4 7 0 |
| 66 | H. | 19,854 | 1055 12 | 844 10 | 4 5 0 |
| 28D | W. L. Moffatt . . | 14,108 | 707 12 | 566 2 | 4 0 0 |
| 24 | G. Thompson . . | 18,993 | 850 12 | 680 10 | 3 11 7 |
| 50, 53 | T. J. C. Crofts . . | 24,483 | 984 0 | 787 4 | 3 4 0 |

CUBICAL SPACE CONTAINED IN THE DESIGN NO. 64.

| CLASS | | Feet. |
|-------|-------------------------------|-------|
| 1— | | |
| | Scullery, pantry, &c. | 1056 |
| | Living-room | 1344 |
| | Bedroom No. 1 | 960 |
| 2— | | |
| | Scullery, pantry, &c. | 1152 |
| | Living-room | 1320 |
| | Bedroom No. 1 | 1080 |
| | do. " 2 | 846 |
| 3— | | |
| | Scullery, pantry, &c. | 896 |
| | Living-room | 1344 |
| | Bedroom No. 1 | 1008 |
| | do. " 2 | 864 |
| | do. " 3 | 756 |

The arrangement of the party-walls and chimney-stacks in these dwellings offers great facility for the application of the system of warming and ventilating shown and described in this pamphlet, which would render them very healthy, and, in order to assist the ready escape of foul air, extraction-flues could be formed adjoining the smoke-flues in the chimney-stacks, having openings and gratings connecting them with the several rooms. These foul-air flues would be carried up to the top sufficiently high above roof, like a chimney-head, for the escape of the foul air. To ensure a direct current of air through each dwelling from back to front, frames filled in with fine perforated zinc were intended to be placed over the living-room and bedroom doors for this purpose. In the arrangement of these plans some attention was bestowed upon their sanitary efficiency ; the water-closets and soil-drains were intended to have been constructed to prevent all possibility of effluvias escaping into the dwellings—each set of closets being provided with a shaft taken up a sufficient height above roof for the escape of all dangerous effluvia arising from stoppage of drains, inaction of syphons or traps. The water-closets and pantries were intended to be thoroughly ventilated by a direct current. Off the water-closet in each dwelling a dust-shaft is placed, communicating with a chamber in basement. These dust-shafts are continued up to top of roof for the escape of unwholesome air arising from vegetable and other decomposed matter.

Each dwelling was intended to have a distinct water-supply, with a cistern of sufficient size fixed in each scullery ; the sculleries would have sinks, washing-coppers, and fireplaces, and would have been fitted with towel-rollers, plate-racks, and meat-hooks. The living-rooms were intended to have dwarf cupboards on each side of fireplaces, with bookshelving over them.



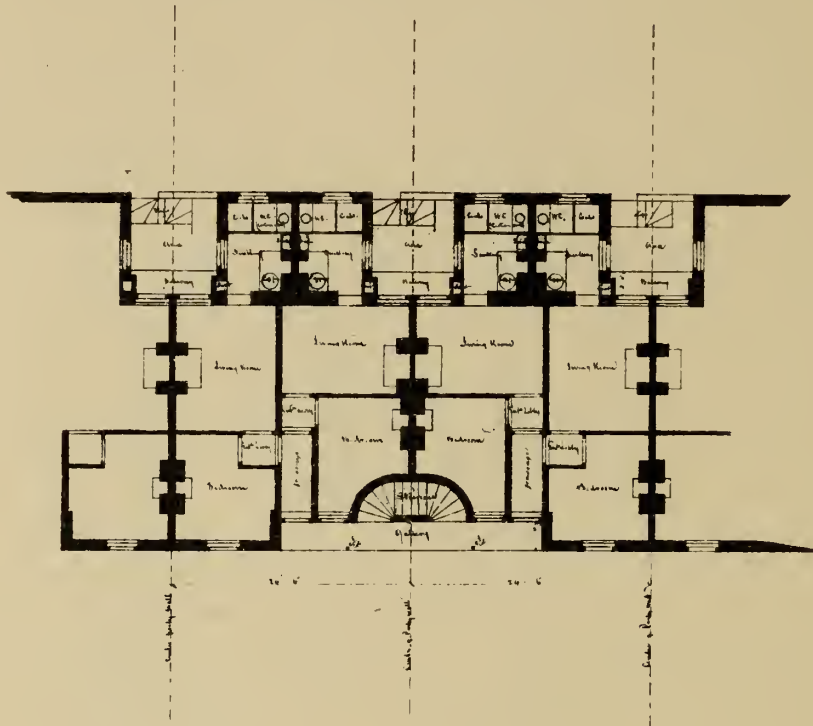
| | |
|---------------------------|-----------|
| Estimated cost | \$24,500. |
| Estimated cost of kitchen | } |
| Washed, iron walls | |
| and drainage | \$800 |

Here covered by buildings 132.31. 5 feet super
Cultural contents ~~=====~~ 99464. c feet cube

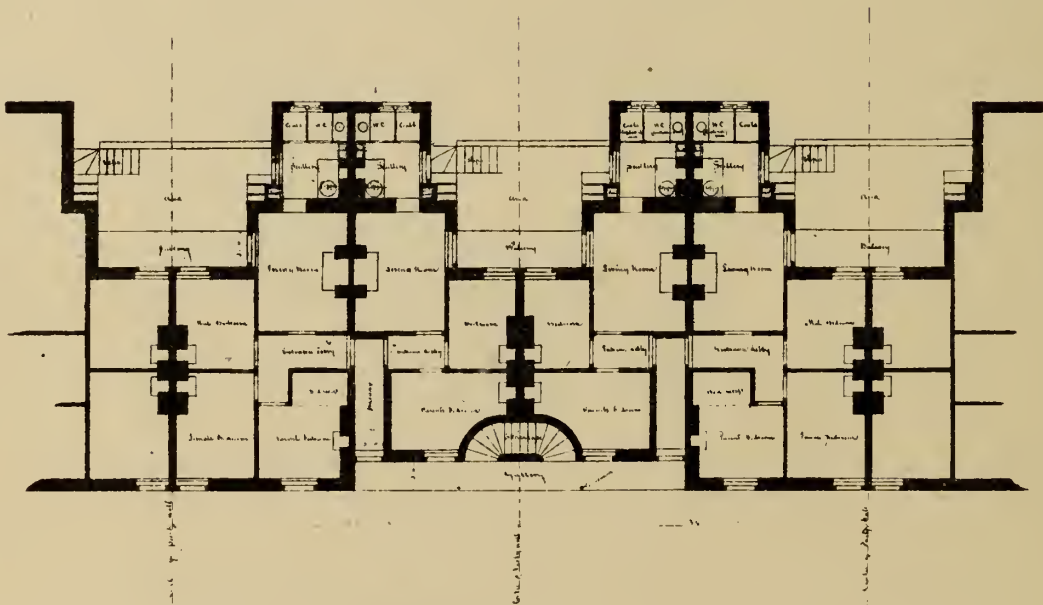
Wm. Birchard and others
vs. the Society for the
Use of the Meeting House
and the Trustees of
the City, Boston.

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PLANS.

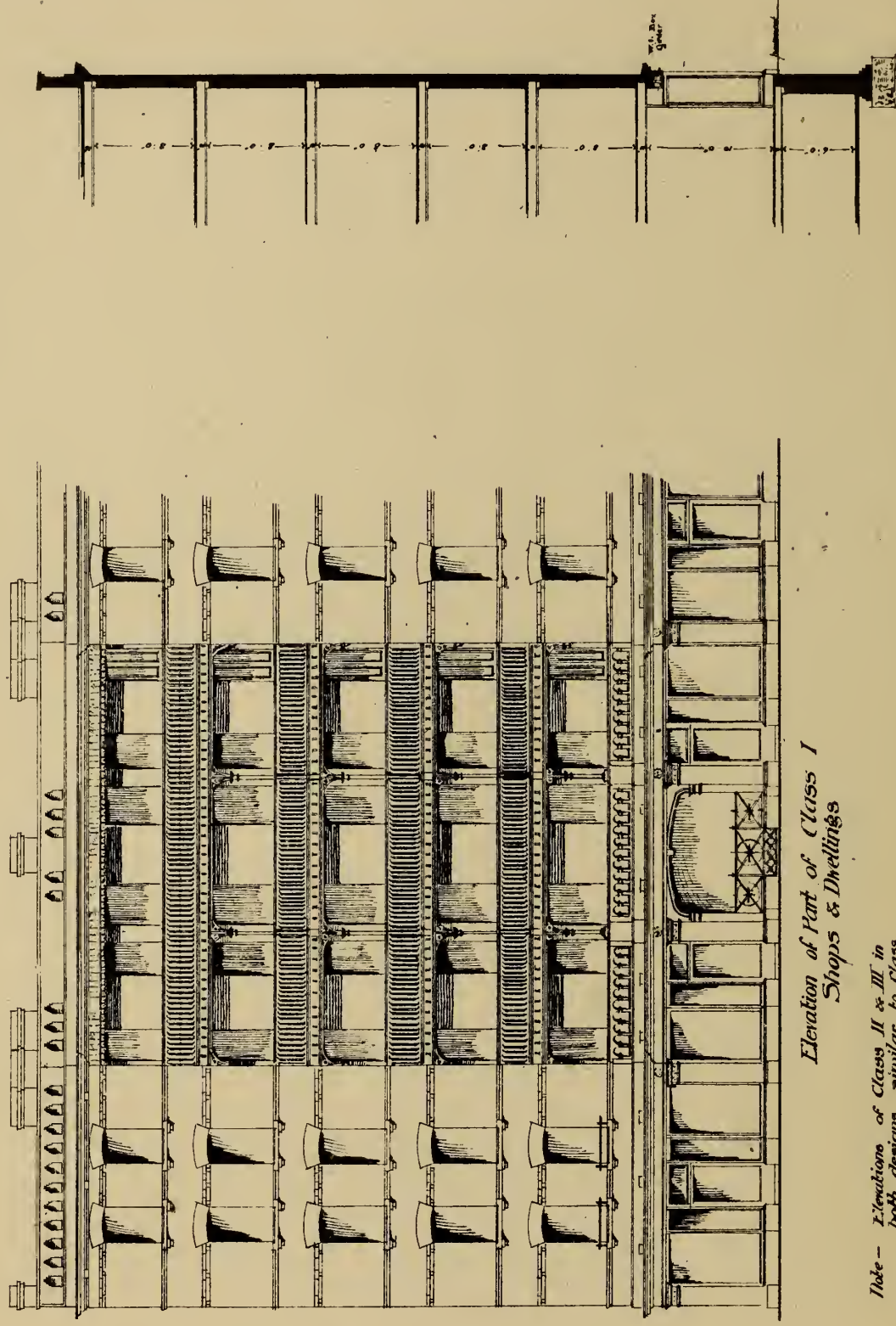


DWELLINGS - CLASS 3.



DWELLINGS - CLASS 1 & 2.

SCALE SIX FEET = ONE INCH.



Elevation of Part of Class I
Shops & Dwellings

Note - Elevations of Class II & III in
both designs similar to Class
I only different widths.

PLATES XXXIII., XXXIV., & XXXV.

THESE diagrams show some other plans which were submitted to the Corporation of Liverpool. They are arranged after the fashion of similar buildings erected in London within the last few years. In these plans it will be observed that one staircase serves as access to a double set of dwellings, two dwellings being arranged on each side thereof. There is, however, some lost space in galleries and passages, rendering these plans the more costly of the two designs. Some time ago there appeared in a London paper some interesting accounts of the buildings belonging to the Industrial Dwellings Company and the dwellings of the Peabody Trust; the former, however, appears to be more of a successful speculation than a charity, the dwellings being mostly occupied by well-to-do artisans and others of a class who can afford to pay high rents—not the really poor. The Company profess to declare a return of 5 per cent net, but there is reason to believe considerable sums must be carried forward to capital amount and invested in additional buildings. The dwellings of the Peabody Trust have been built solely for charitable purposes, and it is to be hoped that the next buildings they erect may be arranged with the least possible waste of space, and at a more economical cost than has hitherto been the case, in order that the rents may be within the means of the class of poor for which these buildings were originally designed to accommodate. The accompanying letter, published in the 'Times' of January 20, 1870, may perhaps be interesting in showing the comparative cost, rent, &c., of these dwellings, and was written with a view to stimulate, if possible, the building of less expensive structures, with rentals more within the means of the poorer classes, for whose benefit these dwellings are much required:—

COMPARISON OF COST, ETC., FOR DWELLINGS OF THE POOR.

To the EDITOR of the 'Times.'

SIR,—There appeared in the columns of a contemporary, a short time back, an elaborate account of the Peabody Trustees' Dwellings and the buildings of the Improved Industrial Dwellings Company (Sir S. Waterlow's dwellings). Having had some little experience in providing dwellings of this class at a moderate cost, I venture to send you a comparative analysis of the accommodation, cost, rental, &c., of these buildings, the Society of Arts' dwellings for the labouring classes, and plans prepared by me some time ago for dwellings of the poor of Liverpool. The latter, although not adopted, proved, upon examination by the borough engineer, to be the most economical from upwards of seventy designs.

The buildings of the Improved Industrial Dwellings Company are six storeys high, having in some cases basement dwellings, and appear to provide 653 distinct dwellings—294 with three rooms, scullery, &c., and 359 having two rooms, scullery, &c.—in all 1600 rooms, exclusive of sculleries; the cost of the former being £162, 3s. 11d., and the latter £108, 2s. 6¾d. per dwelling, or at the rate of £54, 1s. 3d. per room, showing a total expenditure of £86,503 for buildings. The average rent of the larger dwelling is 6s. 10d., and of the smaller one 5s. 1½d. per week. The average rent for both dwellings is 6s. 1¾d., and for each room 2s. 6d. per week. At these rates, when fully let, the gross rental would amount to £10,426 per annum, and the gross return 12 per cent.

The Peabody Trustees' buildings at Islington, Shadwell, and Spitalfields provide about 404 distinct dwellings, comprising one, two, and three rooms respectively, containing in all 861 rooms, at an average cost of £242, 11s. per dwelling, or £113, 16s. 3d. per room, the total cost amounting to £97,994 for buildings. The average rent of each dwelling is 3s. 11d., and of each room 1s. 10d. per week; the gross rental, when fully let, would therefore be about £4104, 2s. per annum, and the gross return 4¼ per cent.

The plans for the dwellings of the poor of Liverpool, six storeys high, without basement dwellings, contain 168 distinct dwellings, comprised in three classes—48 class 1, with four rooms, scullery, &c.; 48 class 2, with three rooms, scullery, &c.; and 72 class 3, with two rooms, scullery, &c.—in all, 480 rooms, exclusive of sculleries: the cost of class 1 being £179, 16s.; class 2, £148, 7s.; and class 3, £98, 18s. per dwelling: or at the rate of £49, 9s. per room, showing a total cost of £23,736 for buildings. The rent of the dwelling, class 1, is 6s. 6d.; class 2, 4s. 10d.; and class 3, 3s. 3d. per week: the average rent being about 4s., and for each room 1s. 7½d. per week. The gross rental, if fully let, would amount to £2028, 16s. per annum, showing a gross return of 8½ per cent.

The Society of Arts' prize dwellings for labourers have been erected under my direction in upwards of nine counties: they are built semi-detached, each dwelling containing four rooms and scullery, with pantry, fuel-place, piggery,

privy, cesspit and ashpit, washing-coppers, baking-ovens, fixtures and fittings, wells, rain-water tank, drainage, &c., complete ; their average cost has been £131, 10s. per dwelling, or £32, 17s. 6d. per room, exclusive of scullery. The average rent per dwelling is about 1s. 9d. per week, or 5¼d. per room per week, showing a gross rental of £4, 11s. per annum, and a gross return of nearly 3½ per cent.

From this statement it will be observed that the Society of Arts' dwellings are the cheapest, and, while containing one room more than the Company's largest dwellings, cost £31, 13s. 11d. less. Assuming the Company's larger dwelling to contain an equal amount of accommodation, the cost would then be about £216 per dwelling, built in tenements ; whereas the Society of Arts' dwellings have cost but £131, 10s., built semi-detached ; and although the former may perhaps be somewhat more substantially built than the latter, and a considerable difference exists between the cost of buildings in London and the country, yet it must be remembered that semi-detached buildings have to bear the whole cost of the structure complete, while tenement dwellings have to bear only a proportionate cost thereof.

The Peabody Trustees' buildings are the most expensive, both per room and dwelling. This is doubtless accounted for by reason of the space lost in long corridors and passages. Had there been a greater number of staircases and no corridors or passages, the cost would have borne a more favourable comparison. The Company's dwellings are not free from this objection, as there is considerable space lost in passages and open galleries on each floor. It will be seen that the plans for the Liverpool dwellings have a proper number of staircases, with the dwellings entering off the stair-landings, thereby utilising all available space and reducing the traffic of the stairs. The established cost of these buildings, whether calculated at per room or dwelling, is also much lower than the Company's or the Peabody Trustees' dwellings.

With reference to the rentals, it will be seen that in the Company's largest dwellings, containing three rooms, scullery, &c., the working man pays an average rent of 6s. 10d. per week, whereas in the Society of Arts' dwellings, containing four rooms and scullery, &c., the labourer pays but 1s. 9d. per week. The working man in London would, therefore, seem to pay four times as much rent for a smaller dwelling compared with that of a labourer in the country.

To enable the working man with a family to pay such a high rent, one of the rooms is not unfrequently let to a lodger, a privilege I believe permitted in certain of the Company's dwellings ; and as the largest of these contain but a limited extent of sleeping-room, this can hardly be done having proper regard to decency. The rates fixed by the Peabody Trustees and the rating of the Liverpool plans appear to be moderate, and within the limits of a working man's means, providing for a proper number of sleeping apartments essentially necessary to all dwellings.

Trusting you will have the goodness to insert this letter, I have the honour to be, sir, your most obedient servant,

JOHN BIRCH.

January 20, 1870.

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